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ORIGINAL ARTICLES.

A UNIFORM NOMENCLATURE OF PHYSICAL SIGNS OCCURRING IN CONNECTION WITH THE RESPIRATORY SYSTEM.[1]

BY AUSTIN FLINT, SR., M.D.

OF NEW YORK.

At the meeting of the International Medical Congress in London, in 1881, I read a paper on "The Analytical study of Auscultation and Percussion." From that paper the following extracts are quoted with reference to their bearing on the purpose of this communication to the American Medical Association:—

"Since the time of Laennec much has been added to our knowledge of auscultation and percussion. It must be said, however, that the enlargement of their scope and the increase in precision of their application to diagnosis, have not been commensurate with the study given to them, and with the place which they have filled in medical literature. A considerable share of the attention which they have received has been directed to the mechanism of physical signs, a highly interesting branch of inquiry, but not essential to their practical utility, and involving much liability to error. The number of signs has by some authors been needlessly multiplied. There have been over-refinements of description and of interpretation. The nomenclature has been open to criticism. Names have not been used by different writers with uniformity as regards signification. The names applied to some signs have conveyed not merely imperfect but erroneous ideas. Some writers have even designated signs by the names of authors who have described them. Hence it is that the study of auscultation and percussion, and their practical employment in diagnosis, have seemed to involve peculiar difficulties, and to be necessarily restricted to a few practitioners." . . . "As opposed to this view, I claim that by a simple method of study, which for the sake of distinction I have called analytical, the characters distinctive of physical signs are rendered clear, precise and readily appreciable, so that the practical advantages of auscultation and percussion may be made available in diagnosis with a moderate amount of time and attention on the part of the student and the practitioner."

"By the analytical method of study, I mean the analysis and comparison of physical signs in respect of the few obvious points of difference by which, practically, musical and other sounds are commonly discriminated. The most important of these points of difference relate to the intensity, the pitch and the quality of sounds." . . . "In the study of the signs furnished by auscultation and percussion, the differential points, in addition to those pertaining to intensity, pitch and quality, are few and easily appreciated. They relate to apparent distance from, or nearness to, the ear, moisture or dryness, the rhythmical succession and the interruption of the continuity of sound." . . . "It is to be assumed that the sole reliable basis of our knowledge of the significance of signs is experience. Certain morbid signs denote particular morbid conditions because the former are found to be constantly associated with the latter. The only solid foundation of the knowledge which underlies the practical application to diagnosis of auscultation and percussion, therefore, is in clinical and autopsical observations."

After the introduction which embraced the foregoing extracts, the paper was devoted to a consideration of the "Physical Signs furnished by Auscultation and Percussion as determined and differentiated by analytical study."

In the discussion to which this paper gave rise, the desirableness of an uniform nomenclature of the physical signs relating to the respiratory system was particularly dwelt upon, and as a result, a committee of five was appointed by Sir William Gull, the president of the medical section, to take this subject into consideration and report at the next meeting of the International Congress. The authors of the paper, Drs. Mahomed and Powell, of London, Professor Ewart, of Berlin, and Professor D'Espine, of Geneva, constituted the members of this committee.

At a conference held directly after the appointment of this committee, it was resolved that the British members and the American member should propose lists of English terms, and that the member from Berlin and the member from Geneva should prepare lists, the former in the German, and the latter in the French language. The several lists were to be sent to the chairman of the committee, the American member, to serve as the basis of a report to be made at the next meeting of the Congress.

After the adjournment of the Congress in London, meetings of the committee were impracticable, but views were interchanged by means of correspondence. The British members and the American member, prepared lists which were printed and submitted to

[1] Read in the Section of Practice of Medicine, Materia, Medica and Physiology of the American Medical Association, April 30, 1885.

members of the profession other than members of the committee. After considerable criticism and various suggestions, the English terms were made very nearly uniform, as regards their number and words, together with the definitions and the significance of the terms respectively. The lists were then transmitted to the member from Berlin and to the member from Geneva. In return, lists were received in the German and in the French language.

The lists in the three languages approximated so closely to uniformity, that the members of the committee congratulated themselves on the progress made toward the end for which the committee was appointed. A comparison of the several lists with reference to the points of agreement and variation, and a printed tabulation of the four lists, were submitted in a report by the chairman to the Medical Section at the meeting of the Congress at Copenhagen in 1884. In conformity with a suggestion contained in the report, the committee was continued, with power to increase the number of its members, and with the expectation of a second report to be made at the meeting of the Ninth International Congress.

Since the meeting of the Congress at Copenhagen, the committee has met with a great loss—the death of Dr. Mahomed. Dr. Mahomed felt deep interest in the work of the committee. He was the only member present at Copenhagen, in addition to the chairman, and he entered warmly into the plan of enlarging the committee so as to embrace members representing other than the English, the German and the French languages, and of the endeavor to secure uniformity of nomenclature in all countries. Professor Lépine, of Lyons, and Professor Trier, of Copenhagen, were added to the committee. Other names were considered but not acted upon.

As yet, since the meeting of the Congress at Copenhagen, there has been no consultation with the members of the committee. This will take place without much further delay, and, in the meantime, it is desired that members of the profession in this country who feel an interest in the matter, will transmit to the chairman of the committee any suggestions bearing on the object for which the committee was appointed. It is for this purpose that the matter is now brought formally to the notice of the American Medical Association.

In connection with this communication a printed list of the terms, etc., prepared by the British members and by the American member of the committee, are submitted, with a request that suggestions may be communicated to the chairman of the committee.

AUSTIN FLINT, *Chairman.*

TABULATED LISTS

Of terms proposed by the British members and the American member of the Committee appointed at the meeting of the International Congress in 1881, to report on a uniform nomenclature of physical signs which occur in connection with the respiratory system.

PALPATION.

BRITISH LIST. *Dr. Powell and Dr. Mahomed.*	AMERICAN LIST. *Dr. Austin Flint.*
1. Vocal fremitus.	Vocal fremitus.
2. Rhonchal fremitus.	Rhonchal fremitus.
3. Fremitus.	Friction fremitus.

PERCUSSION.

1. Tympanitic resonance.	Tympanitic resonance.
2. Amphoric resonance.	Amphoric resonance.
3. Diminished resonance. Dulness.	Diminished resonance. Dulness.
4. Absence of resonance. Flatness.	Absence of resonance. Flatness.
5. Increased resonance.	Increased or vesiculo-tympanitic resonance.
6. [1]Bell sound.	(Not included.)

AUSCULTATION.

First Group. Varieties of Breath Sounds.

1. Exaggerated. Syn. Puerile. Compensatory. Supplementary.	Exaggerated, etc.
2. Diminished. Syn. Feeble. Weakened vesicular murmur.	Diminished, etc.
3. Suppressed. Syn. Absence of breath sound.	Suppressed, etc.
4. Prolonged expiration. General or local.	Prolonged expiration. High or low in pitch.
5. Interrupted respiration. Syn. Jerking, wavy, cog-wheel'd.	Interrupted inspiration, etc.
6. Tubular. Syn. Bronchial. High-pitched blowing.	Tubular. Bronchial.
7. Vesiculo-tubular. Syn. Broncho-vesicular. Harsh, coarse, sub-tubular.	Broncho-vesicular. Syn. Vesiculo-tubular.
8. Amphoric.	Amphoric.
9. Cavernous.	Cavernous.

Second Group. Adventitious Sounds.

1 Rhonchi. Dry musical sounds. (*a*) Sonorous, (*b*) Sibilant.	Rhonchi or dry bronchial râles. (*a*) Sonorous, (*b*) Sibilant.
2. Stridor.	Stridor.
3. Râles. Syn. Bubbling râles, etc. (*a*) Medium, (*b*) Large. High or low in pitch.	Moist or bubbling râles. (*a*) Medium, (*b*) Large, (*c*) Small. High or low in pitch.
4. Gurgling.	Gurgling.
5. Clicking.	Clicking.
6. Crepitation. Syn. Crepitant râle.	Crepitant râle or crepitation.
7. Metallic tinkling.	Metallic tinkling.
8. Splash.	Splash.
9. Friction. (*a*) Dry, (*b*) Moist.	Friction.

Third Group. Varieties of Voice Sounds.

1 Increase of vocal resonance.	Increase of vocal resonance.
2 Diminution or absence of vocal resonance.	Diminution or absence of vocal resonance.
3. Bronchophony.	Bronchophony.
4. Pectoriloquy.	Pectoriloquy.
5. Ægophony.	Ægophony.

PRIMARY MALIGNANT DISEASE OF THE KIDNEYS.[2]

BY GEORGE MINGES, M.D.,

OF DUBUQUE, IOWA.

Malignant disease of the kidney is one of the rarer affections with which the physician has to deal, and was little known prior to 1830. Having seen no less than four cases in a practice of five years, two my own, one occurring in the practice of Dr. G. M. Staples, of Dubuque, and one in that of Dr. Benjamin McCluer, of the same city (both of whom I take this opportunity of thanking for their kind permission to publish their cases, as well as Dr. O. J. Fullerton, of Waterloo, and Dr. P. J. Fullerton, of Raymond,

[1]This term is applied, by some English writers, to a sound produced by percussion, a coin being used as a pleximeter, and the ear applied to the chest. It is supposed to be characteristic of pneumo-thorax. A. F.

[2]Read at the meeting of the Cedar Valley Medical Association, January 6, 1885.

for the promptness with which they sent me the notes of the autopsy with specimens of one of my cases after it passed out of my observation), I have prepared this paper for this Association. In the time at my disposal I have succeeded in collecting the more or less complete histories of sixty cases, which, added to those collected by earlier observers, give me quite a respectable number from which to draw conclusions. I am very much indebted to the classic works of Roberts[1] and Ebstein[2] for information on the subject. The articles by Röhrer[3] and Seibert[4] I have not been able to obtain.

Cystic degeneration of the kidney, according to Ebstein, is rare. I have found reports of quite a number of cases of this disease, some fatal, others operated upon. These I have not included in my table, although I suspect that a good proportion of them were cases of cysto-sarcoma.

Etiology.—Malignant renal disease may occur secondarily, generally affecting both sides, and is propagated either by the circulation, or by extension from similarly diseased neighboring structures; but as these secondary tumors are generally so small as rarely to become the subject of clinical observation, their consideration is here omitted. Heredity is rarely noticed as a cause of primary malignant disease of the kidney. In only two of my collection of sixty cases is it definitely stated that cancer occurred in other members of the family; once in a granddaughter[5] and once in a sister.[6] In one other case another child in the same family is said to have died of induration of the mesenteric glands, which may have been cancerous.[7] Ebstein's assertion that cancer of the kidney does not occur congenitally is probably a mistake; later researches show that malignant disease occurs during early life much more frequently than has hitherto been supposed. Thus, Otto Soltmann[8] has found that of ten cases of tumor of the vagina in children, six occurred between the ages of 2½ and 3 years, the other four earlier, making it probable that some of these at least were congenital. His case, and those of Sänger and Ahlfeldt, were sarcomata. Duzan, in 1876, collected statistics of 182 cases of cancer occurring in childhood, and out of 100 cases Henoch found 52 occurring before the fourth year. Wiederhofer claims to have seen several cases of congenital cancer, and H. E. Clarke[9] reports a case of round-celled sarcoma of the spleen noticed at birth, and proving fatal in one year. A case of sarcoma of the uterus in a child of 3 years has also been reported.[10] Jacobi has been credited with having been the first one to draw attention to congenital sarcoma of the kidney;[11] but in some of Jacobi's cases it may be doubted whether the disease actually existed at birth. In one case, however, there can be no doubt, as the child was born dead, secondary deposits were found in the liver, and the enlargement of the abdomen caused dystocia. The mother had become impregnated just after recovering from a severe attack of typhoid fever and colitis, and while she was growing very stout; and to this fact Jacobi credits the causation of the sarcoma in the fœtus.

Virchow, I believe, was the first to call attention to the causation of cancer by mechanical and chemical irritation. Ebstein mentions six cases of renal cancer caused by traumatic influences; Brinton's and Chomel's cases were caused by blows, Manzolini's by a kick in the side, and Bright's and Jerzykowsky's by falling down stairs and striking the side. The trauma being immediately or very soon followed by hæmaturia in the cases of Brinton, Manzolini and Jerzykowsky, the connection of cause and effect is tolerably clear, although possibly the irritation produced by the effused blood might have been the immediate cause of the new growth. In my collection, case 19 was caused by being trampled by a colt, case 37 by a fall down stairs, case 58 by falling against a fence post, and in cases 50 and 60 heavy lifting was assigned as the cause. Dr. Rowe[1] thinks the cause in his case to have been lead-poisoning, but as lead-poisoning is not likely to occur after so short an exposure, and as turpentine is well known to have an irritating action on the kidneys, it seems more probable that the latter agent was the exciting cause.

Frequency.—Of malignant disease in general, that of the kidney forms but a small proportion. Out of 8,300 cancers Fanchon[2] found only three affecting the kidney; on the other hand, d'Espine[3] found two cases in 889, or 0.3 per cent., seated in that organ, and Virchow[4] has arrived at similar conclusions, finding that 0.5 per cent. of all fatal malignant tumors in Würzburg were of the kidney. In Frerichs' clinic only three cases occurred in ten years.

Age.—Of all cancers, and certainly of those of the abdominal and thoracic organs, that of the kidney occurs most frequently at an early age. In Ebstein's collection of 52 cases, 10 per cent. occurred before the age of one year, and almost 40 per cent. during the first decennium. Of 56 cases in my table where the age is given, 21 occurred in children under five years of age. By adding together Ebstein's cases, those of my table which which were reported after 1876, and those cases in Homans' table not included in my own, I find 111 malignant tumors of the kidney distributed among the decennia, as follows:

Below 5 years	5–10 years	10–20 years	21–30 years	31–40 years	41–50 years	51–60 years	above 60 years
36	11	1	11	15	8	20	9

It will be seen that between 40 and 50 per cent. of all cases occur during the first decennium, and that the sixth decennium comes next in point of frequency. This does not exactly tally with Hennig's observation that only 24 cases of cancer occur in 1,000,000 living children. Ebstein finds in adults 2½ times more cases of renal cancer in males than in females, while in children the sex does not make much difference. Of 46 cases of my table where

[1] Roberts. "A Practical Treatise on Urinary and Renal Diseases." 1866.
[2] Ziemssen's Cyclopædia," article "Cancer of Kidney."
[3] Röhrer. "Das primäre Nierencarcinom." Zurich, 1874.
[4] Seibert in Jahrbuch f. Kinderh. Bd XXXI, H. 3.
[5] See Case 25 of table.
[6] Case 60 of table.
[7] Case 13 of table.
[8] Jahrbuch f. Kinderheilkunde. Bd. XVI. H 3 and 4.
[9] British Medical Journal for 1883, p. 1157.
[10] T. C. Smith in Amer. Jour. of Obstet., Vol. XVI, p. 555.
[11] Seibert, loc. cit.

[1] Case 48 of table.
[2-4] Ebstein, op. cit.

sex is mentioned, I find 24 males and 22 females, or of 29 adults, 17 males and 12 females; of 17 children, 7 males and 10 females.

Pathology.— Side affected. — Almost all authors state that the right kidney is affected much more frequently than the left (Ebstein, Walshe, and the older editions of Roberts). In his latest edition, I believe, Roberts, in a collection of 63 cases, finds both kidneys affected primarily at the same time in only three cases, the other 60 being equally divided between the two sides. Klebs alone gives the preponderance to the left kidney. In my own table the left kidney is seen to be affected twice as often as the right, namely: 30 times out of 47 cases. By adding to Ebstein's cases all those of mine occurring after his time, and those of Homans' table not included in mine, we get a total of 85 cases, with 43 for the right kidney and 42 for the left.

Size.—The affected kidney is almost always enlarged, and generally greatly, although Roberts mentions one case in which it was smaller than normal. According to Ebstein, the largest tumors, not only relatively but absolutely, occur in children, sometimes acquiring an enormous size. The largest I have been able to find recorded were Roberts',[1] occurring in a child of 6 years and weighing 31 lbs., and v. d. Byl's[2] in a child of 8, weighing 15.5 K. In Van Denburg's[3] case a child of 7 years had a tumor weighing 25 lbs. But large tumors occur even at still earlier ages. Hilton Fagge[4] saw one in an infant of 4½ months weighing 4½ lbs., and Mott[5] one in an infant of 11 months weighing 5½ lbs. In J. C. Wilson's case[6] a tumor of 20 lbs. occurred in a child of 2½ years. In Paul's case[7], in a child of 4 years, the tumor weighed six lbs., the whole body weighing only ten. Roberts gives the average weight of the tumor in ten children at 8¾ lbs.; in ten adults at 9¾ lbs. By adding my cases to his, omitting his own of 31 lbs. and Langstaff's which occurred before 1866, I find the average in nineteen adults to be 6¾ lbs.; in twenty-six children 8½ lbs. The average weight is increased by the weight of small tumors being omitted, but on the other hand several were extirpated before their full size had been reached.

Varieties.—Of 63 cases in which the nature of the tumor is mentioned, I find 30 sarcomata, 30 carcinomata, 1 fibro-cystic tumor, 1 adenoma, and one solid tumor. Of the 30 carcinomata, 21 were described as medullary or encephaloid, 1 as papilloma, and 8 simply as cancer or carcinoma. Of the 30 sarcomata, 18 are not more definitely described, 2 are described as myxo-sarcoma, 1 as adeno-sarcoma, 2 as angio-sarcoma, 1 as cysto-sarcoma, 4 as round-celled with many giant-cells, and 1 as spindle-celled. This shows that cancer and sarcoma occur with about equal frequency, although Ebstein seems to doubt whether primary sarcoma of the kidney ever occurs. Jacobi claims to have seen fourteen or fifteen cases of sarcoma of the kidney, some of them congenital, but I have not been able to determine how many of them were primary. The exact nature of many reported cases, however, remains doubtful, no microscopic examination having been made. Of carcinomata, by far the most frequent variety is the medullary, although the following also have been observed: epithelioma by Robin and Michell Clarke,[1] scirrhus by Wilson, Walshe, Cruveilhier and Lebert; primary villous carcinoma with cylinder cells by Cattani;[2] two cases of striated myo-sarcoma by Osler;[3] a primary cylindroma with secondary deposits in liver having the same structure;[4] and a mixture of cylindroma, sarcoma and adenoma.[5] Ebstein also mentions sarcoma carcinomatodes, and Gluge and Rokitansky colloid carcinoma. One of the tumors removed by Billroth was a papilloma.[6] Bright, Lebert and Rokitansky also claim to have seen cases of cancer melanodes. Adenoma, described by Weichselbaum and Greenich,[7] does not interest us much here, as it rarely reaches the size of an egg. It occurs in 20 per cent. of the cases in both kidneys. I have only been able to find one case reported.[8] The tumor occurred in an infant of 11 months, attained the size of a head, and was extirpated by Czerny. Klebs claims to have seen cases in which the transition from adenoma to carcinoma could be traced.[9]

Consistency.—From the consistency of the tumor we cannot form any definite conclusion as to its histological composition, for while I find 6 sarcomas and 3 carcinomas noted as firm, 3 sarcomas are described as containing brain-like matter (Paul's[10] and Alloway's[11]) and in the latter its sarcomatous nature was determined by the microscope. The tumor is likely to be hard in the beginning, afterward undergoing rapid softening in spots, which may cause a suspicion of abscess. On aspirating such a tumor we are likely to be left in the dark as to its nature, as frequently only degenerated cells and granular detritus are obtained. *A priori*, we would expect to find sarcoma more frequently in childhood, as it consists of embryonal tissue, and statistics to a certain extent bear this out. In 29 children carcinoma was found 12 times, sarcoma 17 times, while of 31 adults, 17 were affected with carcinoma, and 14 with sarcoma. The different varieties of sarcoma mentioned in the beginning of this chapter are the same as those occurring in other parts of the body.

Point of Origin.—According to Roberts, cancer of the kidney always begins in the cortex. Formerly its origin was supposed to be in the connective tissue, but Pereverseff has demonstrated its development from the epithelium of the uriniferous tubules, corroborating Waldeyer's theory. In his case could be seen tubules normal in one part of their course, and in another showing proliferation of their natural lining

[1]Case 8 of table.
[2]Gerhardt's Lehrbuch der Kinderkrankheiten, Tübingen, 1871.
[3]Case 30 of table.
[4]Flint, Practice of Medicine.
[5]Ibid.
[6]Case 13 of table.
[7]Case 49 of table.

[1]London Lancet, August 18, 1860.
[2]Gazetta degli Ospit., 1880, vol. I, p. 433.
[3]Journal Anat. and Phys., 1879-80, Vol. XIV., pp 229-233.
[4]E. Wagner.
[5]Ebstein, op. cit.
[6]Case 53 of table.
[7]Mediz. Jahrb., 1883, Heft. II.
[8]Case 27 of table.
[9]Ebstein, op. cit.
[10]Case 49 of table.
[11]Case 37 of table.
[12]Centralb. f. d. medic. Wissensch.

epithelium. Where the disease was farther advanced, the proliferated epithelium with multiplied nuclei blocked up the tubes, distending the tunica propria, and soon the latter was bulged out by the pressure, and coalescence took place with neighboring tubules, the cells at the same time also becoming more varied in form. At first the scanty stroma was found to be formed by the membrana propria; in more degenerated portions it was more abundant, and partook of a cicatricial character. Here were also seen some spindle-cells, but nowhere a development of connective tissue into cancer-cells. Something similar can be seen in the slide which I have prepared from the Kemp case. Here, on passing from the sound into the diseased kidney-structure, we can see the uriniferous tubules becoming more irregular and coalescing, until finally nothing remains but a mass of densely crowded cells with scanty connective-tissue stroma in which only now and then a faint trace of a segment of the outline of a tubule can be recognized. The variety of cancer depends on the proportion of cells to connective tissue, the former preponderating in medullary carcinoma, the latter in scirrhus. In encephaloid the stroma is sometimes formed mainly by very thin-walled vessels whose rupture causes hæmorrhage into the tumor and produces hæmaturia. According to Ebstein, the connective tissue in scirrhus may contract, causing obsolescence of tubules, and then we find a connective tissue poor in cells, containing obsolete tubules, or there may be a proliferation of small cells in the stroma. The Malpighian capsules may become dilated and undergo cystic degeneration, but Braidwood alone speaks of their cancerous degeneration.

Extension.—The cancerous mass is liable to extend into the pelvis of the kidney, and often plugs the ureter, in one case extending to within two or three inches of the bladder.[1] According to Roberts,[2] the ureter is occluded in the majority of cases, either by cancerous material, by an organized clot,[3] or by pressure from the tumor. In several cases the ureter was dilated.

In 12 cases I find the other kidney mentioned as being hypertrophied, and in one of these it also contained a small cyst. In one case it was granular, in one it contained pulpy tubera, and in two it contained secondary nodules. In the 11 remaining cases in which the condition of the other kidney is mentioned, it was healthy. I think that hypertrophy of the non-cancerous kidney has been overlooked in many cases; it was found in all those that came under my observation. The non-cancerous portions of the affected kidney may sometimes be the seat of amyloid degeneration.

Ebstein says that the renal vein escapes in but few cases, but is generally compressed by the tumor, later on its walls are corroded, and thence the cancerous matter may grow upward into the vena cava, or even into the vena azygos, as in a case described by Gintrac. The blood-current frequently carries particles to the lungs or liver, which accounts for the frequency of secondary deposits in those organs. In my table the liver was mentioned ten times as being secondarily affected, the retro-peritoneal glands only six times. The lungs were mentioned five times as being the seat of secondary tumors, but no doubt the thorax in many cases remained unexamined.

Secondary deposits, according to Ebstein, occur in more than one-half the cases. In my 60 cases, their presence is mentioned in only 20, but this does not prove that they were absent in all the others. The supra-renal capsule is rarely affected secondarily, and the same is true of the heart. Todd mentions a case in which secondary nodules occurred in the pleura and mediastinum. The disease may involve neighboring organs by contiguity, especially the lymphatic glands, when a doubt may arise as to the primary seat of the neoplasm. In such cases Waldeyer would always see the origin in the kidney, believing that cancer can only originate in the epithelial cells. Zenker and Schröder,[1] on the other hand, claim to have seen cases of paranephritic cancer which began near the hilum and immediately perforated the capsule to invade the kidney secondarily; and Schröder believes these to be caused by a proliferation of the endothelia of the vessels. In the medical journals of the past few years I have met with several cases cases of retro-renal sarcoma, among others those operated on by Billroth[2] and Chadwick,[3] and also with a case of cancer of the lumbar glands adherent to the kidney.[4] The vertebræ are eroded in rare cases,[5] and the same is true of the ribs.[6] The bladder, prostate gland, and testicle are very rarely affected secondarily from cancer of the kidney, although the reverse is quite a common occurrence.

Adhesions.—Malignant disease of the kidney usually forms adhesions with neighboring organs early in its course; often with the lumbar glands, with the colon lying in front, or with the small intestine; sometimes with the liver, or diaphragm, spleen, omentum, pancreas, anterior parietes, meso-colon, etc.

Perforation sometimes occurs into the peritoneal cavity or the duodenum.[7] Abele describes a case in which there was perforation of the abdominal wall, allowing prolapse of a portion of the intestines, which afterward sloughed, causing a fæcal fistula.[8] The other abdominal viscera are usually more or less displaced. Roberts says the colon invariably lies in front, but in Whitehead's[9] and Gross'[10] cases it was distinctly stated that there was no colon in front. In one case[11] the whole intestinal canal below the stomach lay in front of the tumor. Compression of the duodenum may cause dilatation of the stomach, as in one case of Niemeyer's. On the other hand, the stomach has been known to be so atrophied by compression as to resemble a small diverticulum of the œsophagus.[12] Malignant disease of the left

[1] Case 3 of table.
[2] Roberts, op. cit.
[3] Case 11 of table.

[1] Ebstein, op. cit.
[2] Wien med. Wochensch.
[3] Boston Med. and Surg. Journ., October 23, 1884.
[4] Pepper, in Phil. Med. Times, Vol. V., p. 429.
[5] Case 10 of table.
[6] Case 46 of table.
[7] Rayer.
[8] Ebstein, op. cit.
[9] Case 35 of table.
[10] Case 43 of table.
[11] Case 13 of table.
[12] Case 30 of table.

kidney generally pushes the spleen high up; that of the right side displaces the liver toward the left, or when growing from the upper part, it may cause rotation of that organ on its transverse axis, as in a case described by Doederlein. In one of Roberts' cases a movable spleen was displaced into the iliac fossa. Large tumors may cause great elevation of the diaphragm and compression of the lungs, with dislocation of the heart. There may be œdema of the lower extremities, and ascites, from involvement of the descending vena cava.

Symptomatology.—Cancer of the kidney may exist for some time without causing any very important symptoms, as in the following case, which was reported orally by Dr. G. M. Staples at the meeting of the Dubuque Medical Society, June 8, 1880:

Case I.—Oscar F., æt. 3 years. Five months ago, when mother first noticed the tumor in the left side, it already extended from the free border of the ribs almost to crest of ileum, and almost to median line. It was quite tense and elastic. On account of the malarial district in which the child lived, and as it had had several chills, enlarged spleen was diagnosticated. At one visit, when the author saw the case with Dr. Staples, they both thought they detected an obscurely resonant strip of percussion crossing the tumor in front, and this fact, together with the fluctuation of rounded, tense tumor, made it probable that the case was one of hydronephrosis; but at no subsequent visit could the colon again be traced in front of the swelling. The aspirator needle withdrew but a few drops of blood. Appetite remained fair and emaciation only became great shortly before death. Urine normal. Pain and cachexia were absent until the last few weeks of life.

The autopsy, 28 hours after death, showed extreme emaciation and a markedly senile appearance. Abdomen 72 cm. in circumference. Free border of ribs pressed outward by a tumor extending downward to anterior superior spine of ileum, and having a second lobe extending far to the right of the median line. Integument over tumor covered with large veins. Abdominal parietes excessively thin and almost devoid of fat. Left lobe of tumor spherical, tense, and adherent to descending colon, which passed over it in front. It could be peeled out in front and at the sides, but behind the fingers penetrated the tumor behind and a substance resembling brain-matter escaped. Whole intestinal canal very much compressed. The tumor was estimated to weigh about 12 lbs., and occupied the place of the left kidney, whose tunic formed its sac. Ureter completely occluded by what appeared to be an organized clot. Right kidney, besides a certain amount of hypertrophy, showed nothing peculiar. Both surfaces of liver covered by whitish hemispherical cancer-nodules about ½ inch in diameter. Microscopical examination of the juice showed epithelial cells of varying shapes.

Roberts says: "*The distinctive symptoms of cancer of the kidney are tumor in the abdomen and hæmaturia.* In every case in which it was the determining cause of death, either one or both were present." To this rule there are few exceptions, but in a case described by Hirtz, the only symptoms were uncontrollable diarrhœa, marasmus, and œdema of the legs.

Tumor.—By far the most constant, and generally the first symptom, is tumor. All authors, so far as I am aware, agree on this. Adding the 52 cases collected by Roberts, in 1866, to the 51 of my table which have occurred since that time, I find this symptom absent only three times in 103 cases. In one other case it was not noticed, because the abdomen was not examined during life, but as the belly was large and the tumor had the size of a fœtal head, it could not have escaped a thorough investigation. In one case the tumor was only noticeable occasionally toward the end of life.[1] In *all* cases occurring in children, both in Roberts' and my own collection, the tumor was large, generally enormous. (For examples of such enormous tumors see under head of *Pathology*.) In one case it projected beyond the child's knees when sitting.[2] In such cases the parietes are often crossed by dilated and tortuous veins. The tumor is generally first noticed in the flank between the border of the ribs and the ilium, pushing the intestines before it. Dullness on percussion is not obtained until the tumor has become large to reach the parietes.

The relation of the intestines to the tumor is of great importance in making the diagnosis, as it forms the criterion in diagnosticating retro-peritoneal tumors. If the neoplasm be situated in the right kidney, the cœcum generally lies to its outer side, the ascending colon crosses in front of the tumor obliquely from right to left, and the small intestine lies to the inner side. When the left kidney is affected, the descending colon and a portion of small intestine lie in front. Roberts goes so far as to say that the colon invariably lies in front, but to this also there are some exceptions, as see cases 35 and 43 of table. The colon can be recognized by percussion in most cases until it has become compressed by the large size of the growth, when in a few cases it may still be felt as a firm cord crossing the tumor, or its course may be demonstrated by injecting air (Spencer Wells) or water (Czerny) per rectum. In one case observed by me, brisk pressure over the seat of the colon gave rise to a gurgling sound audible at some distance.

On account of the resistance offered by the lumbar muscles, the growth of the tumor is generally much greater toward the front of the abdomen, and thus it may happen that even in case of large tumors the area of dullness in the loin may not be increased on the side of disease, as was pointed out long ago by Bright. On the other hand, in one of my own cases, in which the tumor did not attain a large size, it could only be detected posteriorly. By deep palpation the neoplasm is felt as a smooth tumor with rounded margins, often presenting nodules of varying consistency, quite hard spots alternating with others presenting a very deceptive sense of fluctuation, or the whole tumor may resemble a large sac filled with fluid. The fixed position of the tumor is generally dwelt upon as a very important characteristic, but the exceptions are quite numerous. Thus in the older literature cases of cancer of floating kidney are mentioned by Rollet, Troja, Bardeleben, and in the *Lancet* of May 18, 1865. Kocher has removed a sarcomatous, Lossen an angio-sarcomatous, and A. E. Barker an encephaloid, floating kidney. In my table of 60 cases I find 17, or 27 per cent., described as more or less movable; 7 "slightly" or "somewhat," 5 "very" or "freely," and 1 "perfectly." The last concerned Prof. Byford's case, in which the tumor seemed to have no connections whatever on palpation, and on operation was found attached by two long, broad bands of peritoneum. It is therefore well not to attach too much importance to the fixity

[1] Case 33 of table.
[2] Case 13 of table.

or mobility of the tumor in making a diagnosis. As a general rule, it may also be stated that the tumor does not descend with the diaphragm during inspiration, the only exception in my table being Alloway's[1] and Homans'[2] cases; although in others examination with reference to this point may have been omitted. In rare instances the tumor is seen to pulsate, and in these cases auscultation may reveal a systolic bruit, as in the following cases: one described by Ballard,[3] in which Bright diagnosticated aneurism of the renal artery, one by Bristow,[4] and one by Holmes;[5] or either symptom may be present alone. There was bruit alone in Alloway's[6] case, and pulsation alone in one of Langstaff's.[7] An important symptom mentioned by Bright, to show the connection of the tumor with the kidney, is omitted by many authors; *i. e.*, the motion communicated to one hand lying on the tumor, when the other hand tilts the kidney forward by deep pressure in the loin.

Hæmaturia.—The next symptom in point of importance and frequency is hæmaturia. Roberts found it present in 24 of 49 cases. Adding out of my list 57 cases where mention is made of its presence or absence, we find that in 106 it was present 48 times, or about 45 per cent. According to Seibert, it is the first symptom in two-thirds of the cases occurring in children. Hæmaturia is especially apt to be the first symptom when the disease is due to trauma, or mechanical or chemical irritation. Brinton[8] describes a case where hæmaturia after receipt of an injury was the *only* symptom of renal cancer. It may occur at various times in the course of the disease. In nine cases I find it mentioned as the first symptom, in two as occurring only early in the disease, in one it did not appear until shortly before death, and in another it first appeared early, but did not recur until just before death. In one case it was almost constant during the last fifty days of life. Twice it was said to occur from time to time, and once to be intermittent. In one case it came on generally after exercise, giving rise to the diagnosis of renal calculus. In one of my own cases it came on generally after drinking beer. As to the quantity of blood passed at a time, this varies greatly, and may vary at different times in the same case. It is rarely so small that it cannot be recognized as blood microscopically.

In 11 cases in which the quantity was noted, it was said to be profuse in 7; slight or only tinging the urine in 4. When but little blood is effused, it is intimately mingled with the urine, giving it a blood-red color, and on standing the blood-discs settle to the bottom. When the sediment contains blood-casts of the tubules, the hemorrhage, must be from the kidney. When the hemorrhage, however, is profuse, the blood may form one gelatinous bright-red clot at the bottom of the vessel, or coagulation may take place in the bladder, causing retention or even coma.[9] When the blood coagulates on its way down the ureter, the clots have the pathognomonic shape of rain-worms, leaving no room for doubt as to the route they have taken (two cases), and in rare cases give rise to symptoms of renal colic, although, as a rule, the occurrence of pain at the time the blood enters the bladder points rather to the passage of a renal calculus down the ureter. More frequently pain and tenesmus occur on attempting to urinate, the urethra becoming blocked by the coagula. In one of my cases this was so distressing as to necessitate the operation of cystotomy.

The urine, as a rule, shows but little alteration from the normal. During the attacks of hæmaturia it of course contains albumen and fibrin and shows blood-discs under the microscope. Of 36 cases where the character of the urine is mentioned, it seems to have been normal between the attacks of hæmaturia in 20. Crystals of uric acid or oxalate of lime were noticed in 3 cases, and triple-phosphates in 1. More or less albumen was present in 7, but in only 2 was the quantity considerable. Pus-globules were observed in 4 cases. Tube-casts were found in 5 cases, and in one of these they were composed of blood-corpuscles. In one case the urine was said to have been milky in the beginning of the disease. Contrary to expectation, uræmic symptoms do not frequently occur in malignant renal disease; only 5 times in my collection of 60 cases, although the urine was scanty in one other. Frequent micturition was a symptom in ten cases. All this is of little value in making a diagnosis, and hence much attention has been paid to examination of the urine for cancer-cells. In three cases of my table, epithelial deposits occurred, and in a case of sarcoma large round cells were found, with large nuclei almost filling them; but all these cellular formations were probably from the normal urinary tract. In Jerzykowsky's case colloid masses were sometimes expelled, but were not closely examined. Ebstein is probably correct when he says: "The occurrence of cells of any particular kind (in the urine) is of no value whatever in the diagnosis of cancer of the kidney; only the finding of cancer-particles with alveolar structure can be looked upon as a symptom of importance." These alveolar particles must be very rarely found, for although the encephaloid matter may project into the ureter, as in Jerzykowsky's case, or extend even to within a few inches of the bladder, as in a case described by Bence Jones, yet the matter is generally so degenerated that nothing characteristic can be found. Heller claims to have found flocculi of cancer coated with uric acid crystals in several cases.

Pain is a very inconstant symptom in malignant disease of the kidney. In 38 cases I find it absent 8 times. In 8 cases it was remarked to be the first symptom. In the following case the pain disappeared with the appearance of the tumor:

Case II.—Anna Tipaldy, of Center Grove, Dubuque Co., Iowa, æt. 8 years, fairly well developed, came under Dr. Benj. McCluer's treatment on July 19, 1884. Has always been healthy until last fall, when she began to complain of weariness and loss of appetite, and began to stand and walk like a hunch-back, without discoverable cause. For a while there was temporary improvement, but she again became worse. There were attacks of slight fever toward evening. Soon she began to complain of headache and great pain in the left side,

[1] Case 37 of table.
[2] Case 50 of table.
[3] Transactions Path. Soc. for 1859.
[4] Med. Times and Gaz., 1854, Vol. II, p. 359.
[5] Brit. Med. Jour., 1873, Vol. I., p. 657.
[6] Case 37 of table.
[7] Case 1 of table.
[8] Brit. Med. Jour. for 1857.
[9] Case 44 of table.

obliging her to keep in bed and causing suspicion of a fractured rib. In the beginning of spring the pain began to subside, and now there is none whatever, except on defecation. She is very much constipated, and requires large doses of cathartics daily. Two months ago first noticed a tumor in the left side which has grown rapidly ever since. No hæmaturia has ever occurred. On inspection, patient slightly anæmic, with senile expression of countenance; no cachexia; clear skin with somewhat enlarged veins; respirations slightly accelerated. In left hypochondriac region an oval, solid, immovable, smooth tumor of the size of two fists, extending from eighth rib downward, forward, and toward right side, pushing the intestines to the left iliac region. The eighth, ninth and tenth ribs pushed outward. No line of resonance between tumor and spleen. Circumference at level of nipple 22 inches, xyphoid cartilage 24, umbilicus 25¾, crest of ilium 22½. Tumor seems to come to surface from depth, and is somewhat notched near the umbilicus. Veins over tumor beginning to enlarge. Transverse colon can be traced to about the splenic flexure, where it is lost. Exploring needle not used. Diagnosis, "cancer of the kidney." Dr. McCluer was succeeded by a homœopath who aspirated about ten ounces of a straw-colored fluid followed by blood, a few days before death.

Autopsy, August 12, 1884, 27 hours after death. Body very emaciated. Face pale and very senile; hands yellow. Measurements: xyphoid cartilage 26 inches, umbilicus 27½ inches. No œdema. No adipose tissue. Descending colon in front of tumor. Tumor, size of adult head, adherent posteriorly, rounded, with a nodule projecting beyond median line. Ribs pressed outward by tumor. During removal the tumor ruptured at point of aspiration and posteriorly, evacuating soft brain-like mass mixed with blood-clots. Most of kidney remaining, although much compressed, separated from neoplasm by a dense membrane. Ureter normal. Stomach pressed upward. Spleen, liver, and mesenteric glands normal. Right kidney hypertrophied to almost twice the normal size, containing a small cyst of diameter of a penny, extending from capsule through cortex to medullary portion. Bladder, thoracic and cranial cavities not examined.

The most frequent seat of the pain is the loin, whence it may radiate to the ribs, shoulders, groin, or down the thigh, simulating sciatica, or to the bladder, imitating renal colic. Retraction of the testicle is rarely present, although the passage of a clot down the ureter may give rise to symptoms of renal colic. The next most frequent seat of pain is the abdomen. In one case of my table a calculus was passed which seemed to explain the pain.[1] In another case it radiated from the liver to the scapula.[2] In one case each the pain is marked "hardly any," "dull," "constant," "agonizing," "intolerable," "causing lameness," "on stumbling," "belly-ache," and "great." Twice it increased with the growth of the tumor, once it did not come on until two weeks before death, and four times it was paroxysmal.

Gastric Symptoms—A priori, we should expect constipation, from compression of the colon, to be a very common symptom, and it is mentioned by most authors as of very frequent occurrence. In my collection it is mentioned only three times; alternating diarrhœa and constipation in 2 cases; diarrhœa in 6, one of mucus and blood; bowels regular in 6. Appetite is said to be fair in 5 cases; variable in 3; voracious in 3. Roberts also mentions 3 cases of voracious appetite. Dyspeptic symptoms are noted in 3 cases, and vomiting was present more or less in 9; in one of these stercoraceous.[3] In two cases poor appetite was said to be the first symptom, but in one it improved again. One case[4] had great craving for sulphur, and another aversion to farinaceous food,[1] explained by absence of pancreas. Ebstein speaks of icterus caused by compression of the common bile-duct.

General Symptoms.—Emaciation usually progresses very rapidly in children. In adults, years may elapse before the constitution becomes affected to any appreciable extent. According to St. Germain, the cancerous cachexia is not observed in children. A waxy appearance from loss of blood may occur, and in the children I have observed a look of premature senility was very well marked. Yet these children often do not appear as much affected as one would suppose, but play about until the size of the tumor and the rapidly waning strength confine them to bed, or the rapid encroachment on the thoracic organs causes agonizing dyspnœa only imperfectly overcome by using all the accessory muscles of respiration. One child of three years and nine months with a tumor weighing 13½ lbs., was confined to bed only two days just before death.[2] Ascites and œdema of the legs, probably due to compression of the vena cava descendens, was present in 6 cases in my table, anasarca with œdema of face in 2, enlargement of abdominal veins in 9.

Jacobi claims that late impairment of the general constitution and temporary improvement render it probable that the tumor is a sarcoma, rather than a carcinoma, and in several of his cases of sarcoma the constitution was impaired late or not at all. I find temporary improvement noted as occurring in two sarcomas and in three carcinomas. In one of Langstaff's cases[3] of cancer, the improvement between the exacerbations was wonderful, and in Skene's[4] case it was so great that medical attendance was discontinued for awhile. In one case there was intense neuralgia of the face and back of the head. In rare cases erosion of vertebræ causes paraplegia, as in a case described by Cornil,[5] and in one case of my table,[6] there were attacks resembling hystero-epilepsy. In 9 cases fever was stated to have been present, in one hectic, in one with rigors, and in one followed by copious perspirations.

Diagnosis.—In the late stages of the disease, when all the symptoms are present, the diagnosis is comparatively easy. V. Niemeyer (Seiz's edition, 1877) says: "To mistake a malignant disease of the kidney for an intra-peritoneal growth, for an enlarged liver or spleen, for an intestinal or ovarian tumor, can only be possible in cases of special difficulty." Yet mistakes have been made by eminent men. In my table of 60 cases the true nature of the case remained completely undetermined up to the time of autopsy or nephrectomy in 17, or almost 30 per cent., even its renal origin escaping all suspicion in 11. In several others the diagnosis was merely one of probability, and I am satisfied that in many cases where the diagnosis was finally established, this was the case only toward the end of life. Later on, Niemeyer states that if, besides marked emaciation, pale or cachectic

[1] Case 10 of table.
[2] Case 30 of table.
[3] Case 34 of table.
[4] Case 48 of table.

[1] Case 22 of table.
[2] Case 16 of table.
[3] Case 1 of table.
[4] Case 28 of table.
[5] Mém. de l'Academie de Médicine, Vol. XXX, p. 337.
[6] Case 10 of table.

appearance, and anasarca or œdema of the ankles, not explained by any other disease, there occur some kidney-symptoms, as pain in renal region or hæmaturia, we should above all things think of cancer of the kidney, even though a tumor cannot yet be palpated with certainty. Flint, in his "Practice of Medicine," devotes about one-third of a page to carcinoma of the kidney, but he evidently wishes to be as nearly infallible as possible when he says: "Hæmaturia, the source of the blood being evidently from the kidney, with or without preceding or accompanying pain in the region, calculous pyelitis being excluded, and a tumor in the abdomen near the site of the kidney being felt, which is not movable, not lowered by the descent of the diaphragm, and not fluctuating (he does not mention the relation of intestine to tumor), render the diagnosis quite certain. The diagnosis under these circumstances is positive if cancer exist in some other situation." A case in which all the above signs were present having occurred in my practice, I will relate it here. For the early history of the case, before it came to me, I am indebted to Dr. P. J. Fullerton, of Raymond, who kindly sent me the notes from his case-book:

Case III.—F. K—, æt. 5½ years, was first seen by Dr. P. J. Fullerton on May 20, 1884, with the history that about four weeks before, while climbing over a fence, the top board had broken, and he had fallen with his abdomen across the next lower board; and that two weeks subsequently some blood had appeared in his urine, the hæmaturia having recurred several times since, and being the only symptom. No pain or tenderness whatever. Constitution good. No heredity. Hygienic surroundings not of the best. Position erect, movements active, urine normal. On examination a tumor of the size of an orange was found in region of left kidney. No diagnosis, but unfavorable prognosis. Prescribed ergot for hæmaturia, and locally ung. hyd. biniod. Six days later tumor had already increased to double its former size, and on May 31 it was found to be growing rapidly; still there was no emaciation, and boy seemed bright and active.

On June 10 he was brought to me; his appetite was poor and he had commenced to emaciate, but there was no cachexia. He complained of pains in abdomen in the evenings, but was quite lively and playful during the day. A non-fluctuating, somewhat elastic, immovable, nodular tumor (the different nodules being of different consistency), which could be slightly tilted forward by pressure in the loin, not descending with the diaphragm, was found on the left side of the abdomen, extending from the eighth rib to the middle of Poupart's ligament, and from the loin almost to the median line, a nodule 5 cm. long and 5 cm. wide extending thence across the linea alba at the umbilicus. The descending colon could be traced by percussion, crossing the tumor perpendicularly in front at the junction of the small tumor with the main mass, and gurgling on pressure. Under chloroform the tumor could be palpated backward almost to the kidney. The aspirator removed a few drops of brain-like and muco-purulent matter, showing under the microscope only pus and blood-globules and granular detritus. Urine 1020, acid, slightly opalescent, quite light-colored, containing trace of albumen detectable by heat, potassio-mercuric iodide, sodium tungstate and potassium ferrocyanide, but not by nitric acid. No sugar. Numerous specimens examined under the microscope; some showed only numerous pus-cells, both separate and aggregated as in pyelitis, with but few red blood-discs, while others showed principally epithelial cells of varying sizes, some transparent, others granular; also one or two granular tube-casts and a single caudate cell. After standing longer, copious uric acid crystals. Diagnosis, "cancer of kidney, which will prove fatal in three months at most."

The parents wished to have an operation performed, but I advised against it, as I considered the disease too far advanced, and sent patient back home, to die. Dr. O. J. Fullerton, of Waterloo, kindly wrote me that the child lived about one month longer, declining rapidly, becoming cachectic, lying with thighs flexed most of the time, suffering constant pains unless under the influence of opiates.

The *autopsy*, six hours after death, showed left kidney enclosed in a cyst, which ruptured during extirpation, discharging very offensive, semi-fluid, brain-like mass contained between two membranes, one tightly enveloping the kidney, the other fibrous, smooth, and white. Pelvis of kidney with calyces and whole interior broken down, but of normal size. Tumor estimated to weigh 6 lbs., adherent to viscera and parietes. Right kidney enlarged. Spleen normal. Liver covered with white secondary deposits. Great emaciation, especially of *right* lower extremity.

The doctor kindly sent me specimens of liver, cyst and kidney, of which I have mounted some colored sections, some of which show the development of the disease from the epithelial lining of the uriniferous tubules as described in the chapter on "Pathology," p. 620. Even when all these symptoms are present, however, errors of diagnosis are still possible. Thus, Strübing records a case occurring in a woman aged 51, where on account of pain in the kidney, hæmaturia enlargement of both kidneys, and temporary presence of albuminuria, cancer had been diagnosticated, but autopsy showed cystic degeneration.[1]

The existence of tumor in the flank, with hæmaturia, should awaken suspicion; according to Roberts, it leaves scarcely a doubt as to the true nature of the disease. Such a case has occurred in the practice of Dr. J. P. Morison, of Traer, Tama county, with whose kind permission I publish it:

Case IV.—Mrs. C., æt. 50 years, came under Dr. Morison's treatment for severe hæmaturia in the year 1876 or 1877. The first symptom had been pain in region of right kidney, which followed lifting a wash-tub some time previous. A sister of patient had died of cancer of the breast. No tumor detectable. Six weeks later, the hæmaturia continuing, a tumor was first noticed in the right flank. The urine contained blood-corpuscles, tube-casts, albumen, some broken-down fragments, and at one time a *worm-shaped, organized tube, evidently a cast from the the ureter*. The tumor rapidly enlarged and became more movable. Bowels constipated. Health soon became impaired and cancerous cachexia well-marked. The disease was supposed to be seated in the right kidney, although its exact nature remained undetermined. A consulting physician, however, diagnosticated ovarian tumor. Death occurred four months after she had first come under treatment.

The autopsy revealed cancer of right kidney weighing about 4 lbs., adherent to the colon lying on its anterior surface. Left kidney somewhat enlarged, otherwise normal. No secondary deposits observed.

Hæmaturia is a valuable positive sign, but too much importance should not be attached to its absence. In children the diagnosis is comparatively easy; for a large tumor was detected in all the cases I have found recorded, and hæmaturia is present in two-thirds of the cases, according to Seibert. Its seat in the kidney determined, the tumor can only be caused by cystic degeneration, hydronephrosis, or malignant disease. As the former two are probably always congenital, the diagnosis of malignant disease in children with a non-congenital renal tumor can be made with almost absolute certainty (Ebstein). When lumbar pain alone is present, without the distinctive symptoms of tumor and hæmaturia, it is impossible to make even a diagnosis of probability, unless the pain is severe and constant and associated with cancer in other organs. Small malignant tumors may run an entirely latent course. Such cases have been

[1] Deutches Archiv. f. klin. Med. for 1882.

described by Ebstein,[1] and by Lebert.[2] In Guitéras's case the tumor could have been found had it been looked for.

When abdominal tumor is present, it remains to determine its connection with the kidney. Tumors of the right kidney may be mistaken for those of the liver, of the glands in the porta hepatis, diseases of the pylorus, cœcum, or ascending colon; tumors of the left kidney for enlarged spleen and disease of the descending colon; those of either kidney for tumors of the mesenteric glands, ovaries, or the uterus.

Renal tumors differ from hepatic in the following characteristics: The edge of the hand can generally be inserted between right renal tumors and the liver, and by percussion a narrow strip of resonant intestine can generally be recognized. When a tumor growing from the upper part of the right kidney, by pressing against the liver, turns the latter on its transverse axis and causes it to present its broad upper surface to the anterior abdominal wall, it is very easy to fall into the mistake of diagnosticating an enlarged liver unless other symptoms lead us into the right track. This occurred in a child 4 years old, where the kidney-symptoms were very trifling.[3] Tumors of the liver are apt to descend with the diaphragm during inspiration, but cannot be tilted forward by pressure in the renal region. Exceptions to this rule, however, may occur, as proven by a case seen by the author only a few days ago, in which an enormously enlarged liver studded with multiple abscesses caused a tumor which did not descend with the diaphragm because the corresponding pleural cavity was so filled with fluid that no movement of the diaphragm was possible on that side, and which was tilted forward by pressure in the loin because it was firmly adherent to the peritoneal covering of the kidney. On the other hand, tumors of the kidney sometimes move with respiration; in my table only those of Homans and Alloway. The kidney tumor as a rule is crossed obliquely by the ascending colon, which, if too compressed to give resonant percussion, may in some cases be recognized by palpation, or by injecting air or water into it per rectum. However, as already shown under the head of "Pathology," the tumor is more frequently situated behind the tumor than credited by Roberts. Malignant disease may exist in the kidney and liver at the same time, giving rise to great doubt as to the diagnosis.

Fæcal tumors of the cœcum and ascending colon are generally easily recognized by their doughy feel, the history of the case, the changeability of their form by heredity, and the influence of cathartics.

Enlarged spleen, in the beginning, is not likely to extend as low in the hypochondrium as renal tumor, but higher toward the axillary region. Splenic, like hepatic tumor, moves with the diaphragm, and, like it, is not crossed by the colon; but Rosenstein has seen a case of cancer of the kidney where the dullness was continuous with that of the spleen, where also the colon was situated behind the tumor. The hand can generally be inserted beneath the lower surface of the enlarged spleen and can feel its sharp, firm, and notched anterior border. In enlarged spleen the history generally shows the presence of malarial poisoning or of leucæmia, which latter has been observed by West to cause great splenic enlargement in an infant of three months. As hæmaturia may be present in leucæmia and renal tumor may escape detection by attacking the upper part of the kidney only, it may become important to examine the blood microscopically for an increase in the proportion of white corpuscles. Roberts mentions a case where a spleen enlarged by leucæmia with hæmaturia was taken for renal cancer. A wandering spleen has also been known to be depressed into the iliac region by a renal tumor.

An ovarian tumor grows from below upwards and has the intestine behind it in the lumbar region, yet renal malignant tumor is sometimes mistaken for it. Thus Greenhalgh[1] observed a supposed ovarian tumor during two pregnancies, and patient becoming again pregnant, and dying while the propriety of an ovariotomy was being discussed, the autopsy revealed encephaloid of the kidney in an advanced stage. Cystic kidney has been successfully extirpated while the operator was intending to perform an ovariotomy.[2] When the malignant kidney is a floating one this mistake is especially liable to occur, and has been made by such eminent gynecologists as Thomas[3] and Peaslee,[4] and Lossen[5] operated successfuly on such an imaginary ovarian tumor during pregnancy. The diagnosis is still more difficult when, as has actually occurred, the renal tumor was both floating and situated in front of the intestine, causing an ovariotomy to be begun.[6] Exploratory aspiration is the only safeguard against such mistakes. Vaginal examination and rectal exploration with the whole hand, according to Simon, may aid essentially in arriving at a diagnosis.

Tumors of the *uterus* are differentiated in the same way as those of the ovary.

Great enlargements of *mesenteric glands* sometimes occur in children, and may cause errors of diagnosis.

Psoas abscess and renal malignant disease may be confounded with each other. The abscess may be deeply situated, showing little fluctuation, and on the other hand, malignant disease of the kidney may simulate fluctuation. Psoas abscess, however, is apt to be much more tender on pressure, never reaches so high up in the abdomen, and is less oval in shape.

Aneurism simulated by renal cancer has already been referred to in the chapter on "Symptomatology." Other symptoms must be taken into account.

Ascites has been diagnosticated when the malignant growth was very soft and filled up the whole abdomen.[7] In other cases ascites existed together with the tumor, and in one case the latter was not found until the former had been relieved by tapping.[8]

Other renal tumors. The renal origin of the tumor having been determined, it remains to differentiate

[1]Ziemssen's Cyclopædia, loc. cit.
[2]Virchow's Archiv., Vol. XIII, p. 532.
[3]Med. Gazette, May, 1831.

[1]St. Barth. Hosp. Reports, Vol. I.
[2]Keeling, Brit. Med. Jour., December 31, 1882.
[3]Case 40 of table.
[4]Peaslee. "Ovarian Tumors."
[5]Case 39 of table.
[6]London Lancet, May 18, 1865.
[7]St. George's Hospital Reports, Vol. II. [8]Case 38 of table.

malignant growth from hydronephrosis, pyonephrosis, perinephritis, hydatid, and cystic degeneration. Niemeyer says: "As a rule, malignant tumors are of greater consistency, occasional hæmaturia aids the diagnosis, which is confirmed by the recognition of secondary deposits in other organs. *Rapid and irregular growth of the tumor, unevenness and nodular feel of the surface, the varying consistency in different portions, speak for carcinoma.*" The examination of the urine, consideration of the constitutional symptoms, and exploratory puncture, are often necessary to aid in making the diagnosis, although A. H. Smith thought that the puncture caused more rapid degeneration in its vicinity in his case.[1] Obstruction of the ureter by cancerous particles or clots, or by a coexisting nephrolithiasis may give rise to a combination of hydronephrosis and malignant kidney. In one of Jacobi's cases[2] the cancer was complicated by perinephritic abscess, and evacuating the latter caused great temporary improvement. The diagnosis was pyo-nephrosis.

Exploratory puncture of renal malignant disease is now more frequently resorted to than formerly, but is not always very satisfactory, although Döderlein claims to have evacuated encephaloid matter showing scanty stroma with numerous cells, and Schüppel numerous colloid particles.[3] In one of my own cases I also obtained cerebriform matter with muco-purulent fluid, although the microscope only showed pus-globules, fatty granules, and detritus. Generally, however, only a few drops of blood are obtained, and in a few instances a cyst has been tapped.[4]

The differentiation between sarcoma and carcinoma is considered under the head of "Symptomatology."

(*To be concluded.*)

MUMPS; WITH AN UNUSUAL SEQUEL.

BY RICHARD McSHERRY, M. D.,

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All the contagious diseases present complications or sequelæ more or less familiar to practitioners, but generally we find attributed to mumps only metastasis to testes in males or mamma in females, or mayhap some affection of the ears, or occasional though rare suppuration of or about the parotid or other salivary glands.

But in fact there may be various other complications or sequelæ which may need attention.

Thus some French observers, Lannois and Lemoine, call attention to the pseudo-rheumatism which may attend or supervene upon mumps, just as it may upon other infectious diseases, as erysipelas and scarlet fever. It may attack the articulation or synovial sheaths of muscles; in short, there is an apparent sub-acute rheumatism, which, however, is not amenable to the therapeutic agency of salycilate of soda.

According to Dr. Fournié, hearing and sight are apt to be temporarily or permanently impaired, the disorders coming on during or subsequent to the attack of mumps.

Thus we may have deafness, temporary or permanent, and occasionally some of the symptoms of Ménière's disease. There may be otorrhœa, from catarrh of the meatus, or otherwise we may find ocular complications, as, 1, conjunctivitis; 2, inflammation of the lachrymal gland; and, 3, sensorial derangements of diverse nature.

These affections are supposed to be due to the infectious principle of the disease upon the nervous system.

The writer lately had a case in which there was a sequel more remote from the seat of origin than about the eyes or ears. Miss S., a finely developed young lady, aged about five and twenty, demanded advice on April 16, having recently recovered from a severe attack of mumps, during which she returned home from a neighboring city. She complained of great pain in deglutition, which she located especially about the centre of the sternum, though radiating to the sides of the chest, and backward towards the spine. There was no fever. The treatment directed was: ℞. Glycerine, ℥j; syr. rhu., ℥ij; tinct. belladonna, ℥j; mix. S. Teaspoonful four times a day. An application was made of Thapsin plaster over seat of disease. Two days of this treatment gave no relief. Pain was persistent, always increased upon every attempt at swallowing, with a sense of gurgling at an apparent point of obstruction. Inability to take food and a sense of oppression amounting to suffocation (*besoin de respirer*) gave her great alarm. ℞. Vin. ant. et potass. ℥j; glycerine ℥ss, ol. morrhuæ, ℥j; mix; of which teaspoonful doses were given at short intervals, the oil to lubricate the passage, the antimonial to cause relaxation by nausea. Very transient relief followed. On the 21st, to ascertain if any organic obstruction was in the way, an æsophagal tube was passed down by my son, Dr. Clinton McSherry, without difficulty, but still with aggravation of pain.

She was then directed to take the following prescription: ℞. Ol. morrhuæ ℥ij; aq. calcis, ℥iss; glycerine, ℥ss; morph., s. gr.; acid hydrocyanic dilut. gtt.xxx; mix; S. Dessertspoonful every three hours. These oleaginous mixtures were swallowed more easily than food or drink. Soft eggs were ordered as the principal food. They were alleged to increase pain, but this appeared to be due to the fact that pepper and salt were used upon them pretty freely, which were directed to be subsequently omitted. As the bowels were quite costive there was ordered: ℞. Calomel gr. x; ex. colchic. root gr. iv, in four capsules, one morning and night to the desired effect. As these caused no action, castor oil was subsequently given.

Pain and distress in the meantime continued still severe. On the 24th, recourse was had to the most time-honored of the old remedies used for the neurotic disorder conventionally called hysteria, thus: ℞. Gum assafœtida, pulv. gum acacia aa ℥j, aqua Oss. Tablespoonful every three hours.

On the 25th the improvement was very decided, but also coincidently there was very decided salivation. A mucilaginous mouth wash with chlorate of potash and borax was directed, and afterwards, for some spots of ulceration, local dressings of bismuth,

[1] Case 11 of table.
[2] Case 47 of table.
[3] Eberhardt. Dissertation.
[4] Case 59 of table.

rhubarb and gum arabic, all of which served a good purpose. Convalescence was then fairly established.

It is in evidence that some perturbating nuerotic disturbance, some morbid sensibility, was affecting the tract of the œsophagus in the middle of its way, where it is supplied by filament from the posterior pulmonary branches of the par-vagum, and thence, probably by reflex action, all the distress that pervaded the adjacent parts of the chest.

Was the œsophageal disease a sequel proper of the mumps, just as a pseudo-rheumatism may be, or was it merely a *post-hoc* development? In the treatment of the case the oleaginous mixtures and morphia had some relieving effect, but did not cure. How much of this result may be due to the assofœtida, or how much to the profound impression made by the mercurial? There was doubtless some hyperæmia at the sensitive part of the œsophageal mucous membrane, if not actual inflammation, and it is reasonable to believe that a free secretion caused at once in the salivary glands, as well as in the racemose glands of the œsophagus, by the mercurial, greatly promoted the cure. Salivation was certainly no part of the design, and the writer is quite willing to let the reader judge for himself as to the remedial influence of the various agents used.

Baltimore, May 9, 1885.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

THE THERAPEUTIC VALUE OF ARSENIC IN ANÆMIA AND ATROPHIC CONDITIONS. DR. SAMUEL WILKES, in the *Lancet* for April 11, writes strongly in favor of arsenic in many diseases where skepticism as to its use on the part of a large portion of the profession has generally prevailed. There can be no doubt that many of the cutaneous affections cured by arsenic have a gouty origin, and therefore it is not surprising that the same remedy has a great power in preventing attacks of gout. Then, this gouty class of persons are often neuralgic, and it may be in them especially that arsenic is the best nervine remedy. He has found it amongst the most efficacious medicines, and in some cases the only remedy. Thus, before the introduction of nitrite of amyl and glonoine for angina pectoris, he relied mainly on arsenic, and in some cases kept off attacks for weeks where they had previously occurred almost daily. But the most remarkable effects of this remedy are seen in anæmia and various forms of cachexia and atrophy. One case which he cites was a lady about forty years of age, who was pronounced to be the subject of idiopathic anæmia. Her bloodless and feeble condition compelled her to keep her bed, and it was never believed that she would rise from it again. Arsenic was used, she soon began to improve, and in a few weeks was able to visit her doctor at his house. Her husband was not surprised at the action of the remedy, for, as he said, if he had a horse which was not "thrifty" he gave it arsenic, rendering it again plump and glossy. Another case of the so-called pernicious anæmia was in a gentleman who had gradually grown anæmic and breathless, so as to be unable to leave his house, and he walked with much difficulty. He took five drops of liquor arsenicalis, and in a month he was comparatively well. In most of the cases where arsenic has succeeded, iron had previously failed. It is, however, in wasting and general cachexia that Dr. Wilkes has been the most pleased with its action. He details several cases where there were evidences of extreme wasting and debility, attributable to no special disease, and where arsenic effected cures.

He has never given very large doses, generally four or five drops of the liquor arsenicalis three times a day, or a little more of the soda preparation; nor has he observed any injurious effects from its long use, although, as is known, it becomes absorbed into the system, the urine showing its presence many weeks after its administration has ceased.

An editorial on this article, in the same number of the *Lancet*, considers Dr. Wilkes' testimony as of great value, as coming from one who is far too much imbued with scientific caution to lavish undeserved credit on any pharmacopœial preparation. The testimony of Dr. Wilkes on its efficacy in idiopathic anæmia is borne out by the experience of many physicians; among the most recent being Dr. Warfinge, of Stockholm, who reported several cases of remarkably rapid arrest of the downward progress of the disease, and even of recovery, under the use of arsenic. All such cases should, however, be subjected to prolonged supervision, as it is notorious that relapses are prone to occur. The same remedy has been also successfully employed in an even more definite cachexia — viz.: Hodgkins' disease, where the administration of arsenic has been supplemented by its injection into the hyperplastic lymphatic glands with, according to Winiwarter, astonishing results.

RHIGOLENE OR AMYL HYDRIDE.—DR. RICHARDSON finds this useful as follows:

For Burns.—Camphor and spermaceti dissolve in rhigolene freely. The solution so formed may be applied with cotton-wool to burns. The evaporation of the fluid gives instant relief to pain, and leaves over the surface a thin layer of spermaceti and camphor, which excludes air and forms an excellent dressing. One drachm of spermaceti and one drachm of camphor will dissolve in two fluid ounces of rhigolene.

For Iodine Disinfection.—The hydride takes up iodine, making an iodine solution, useful for various purposes. Applied to the surface of a fœtid wound, it leaves the iodine on the surface in finest subdivision. Sprayed into the throat, the solution is useful in malignant or fœtid ulceration, one or two injections of the spray being quite sufficient to leave free iodine upon the surface. Inhaled as a weak solution, it affords a means of allowing iodine to enter the respiratory tract, a little iodine being always carried over with the vapor. The strength used is five grains of iodine in one fluid ounce of rhigolene. One of Gamgee's excellent absorbent pads treated with half a fluid ounce of this solution becomes an iodine sponge, applicable for a variety of purposes.

For Antiseptic Use.—By shaking a strong solution of ammonia with the rhigolene and then decanting off the water, an ammoniated solution is obtained, which acts as an antiseptic for inhalation.

Oxalic Ether.—Dr. B. W. Richardson, in his *Asclepiad* for April, 1885, under the head of Opuscula Practica, gives some "useful notes for busy practitioners." He obtains oxalic ether by digesting equal parts of oxalic acid and absolute alcohol for ten hours at 120 degrees F., with a tube from the flask to carry over the ether into a condenser; or by heating one part of dehydrated oxalic acid with six parts of absolute alcohol with distillation and purification. The ether, at ordinary temperatures, is a colorless liquid of pleasant odor, but a decidedly biting taste. Boils at 361 degrees F. Soluble in water to the extent of four per cent. by volume. In alcohol and ethylic ether it dissolves readily. Water converts it, after a time, into alcohol and oxalic acid; alkaline solutions of potassa and soda into alcohol and oxalates of the bases; ammonia into alcohol and examide. It is easily introduced hypodermically, with a purely local action, being decomposed at the point where it is introduced, producing almost painlessly a free and dry eschar, without any marked constitutional disturbance, unless the quantity injected be excessive. Oxalic ether promises to be of service in applications either by the brush or by needle injection for the removal of morbid vascular growths.

Anodyne Counter-Irritation.—Dr. Richardson, on the theory that if by strong counter-irritation the surface of the body, in any part, were rendered very vascular, the absorption of a narcotic applied to that surface caused a local insensibility much more intense than if the narcotic had been simply placed on the skin in its natural state, combines a narcotic with a counter-irritant, as follows:

1. Mustard, four tablespoonfuls; tincture of opium, two fluid drachms; glycerine, one tablespoonful; water, heated to 100 degrees F. To be applied on sponge or linen in the usual way.

2. Mustard, four tablespoonfuls; soda carbonate, half an ounce; Dover's powder, one drachm; glycerine, one tablespoonful; water, heated, sufficient to make a poultice. This forms an alkaline as well as anodyne counter-irritant for lumbago and muscular pains.

3. Cantharidine plaster, one drachm; extract of belladonna, one grain. To make an anodyne blister. This is useful for the blister at the back of the ear, in cases of pain from sub-acute inflammation.

4. Emplastrum calefaciens (Emplastrum piciscum cantharide, U. S.) is a good medium for anodyne counter-irritation. With it morphia, codeia, and other alkaloids combine well, on addition of a little glycerine.

Ozonein.—Brand ("Jour. de Méd. de Paris") has discovered a method of condensing ozone and preserving it in a permanent form. This has hitherto been impossible, on account of the rapid change of ozone into oxygen. Ozonein is said to be a powerful disinfectant. Evaporated in hospital wards, it is a valuable means of purifying the atmosphere. It was used with excellent results during the recent cholera epidemic at Toulon.—*N. Y. Med. Jour.*, May 23, 1885.

MEDICINE.

Icterus Neonatorum.—Dr. Henry Ashby, in a note on this disease in the *Medical Times*, April 25, 1885, gives a case where jaundice made its appearance on the second day and the infant died on the eleventh, the ductus venosus being open and admitted easily an ordinary director. This he gives in support of Quincke's views (*Archiv fur experimentelle Pathologie und Pharmakologie*, XIX, 1 and 2), that icterus is due to the continued patency of the ductus venosus. Quincke points out that during fœtal life the blood of the portal vein contains no bile-pigment, or exceedingly little, inasmuch as no digestion takes place, and hardly any bile enters the intestine. After birth a striking change ensues; as digestion commences, bile is poured in large quantities into the small intestine, a small amount is absorbed by the portal vein, conveyed to the liver, where it is separated from the portal blood and re-enters the bile duct. Should, however, there be a delay in the closure of the ductus venosus, a certain portion of the portal blood, containing bile, enters the general circulation through the open duct, and gives rise to a more or less intense jaundice, which disappears on the obliteration or contraction of the duct. Other conditions favor jaundice in the newly born, viz.: (1) the destruction of the fœtal red corpuscles, which is said to take place after birth, supplies much material for the manufacture of bile pigment; (2) the epithelium of the infant's kidneys does not as readily as that of adults excrete bile pigment, as evidenced by the bile-pigment deposited in the epithelium in cases of jaundice, and its absence or existence only in small quantities in the urine; (3) bilirubin does not so readily change into urobilin in the intestines of infants as in that of adults, as evidenced by their golden yellow stools. If this view be true, it will explain why immature and weak children should be more liable to jaundice than the full time and strong infants, inasmuch as in the former the duct would be larger at birth and continue open for a longer period. In cases also where there was atalectasis and obstruction through the lungs, and consequent stasis on the right side of the heart, producing passive congestion of the liver, the blood of the portal vein would more readily pass directly into the inferior vena-cava through the open duct, than pass through the capillaries of the liver.

Muriate of Cocaine in External Hemorrhoids.—The uses to which the muriate of cocaine has been put led Dr. H. A. Smith, of Philadelphia, to try it as a local anæsthetic in the excision of external hemorrhoids.

The patient was a man about fifty years of age, of nervous temperament, with a timidity of pain amounting to fear, dyspeptic, and general health considerably below par. After having exhausted the materia medica

of "remedies" and obtaining no relief, he finally consented to an operation. On examination he found the skin and mucous membrane around the anus a mass of corrugations with slight patches of ulceration between the folds; five piles protruded from the anal fissure, four of moderate size and one with a base about one and one-half inches in its long diameter.

He considered this an excellent case for operation. After the usual preliminary preparation, he began by injecting about one-third of a grain of muriate of cocaine into each of three of the piles, and in about two minutes, with scissors, he excised them close to the base, the patient experiencing hardly more than slight discomfort. His timidity preventing any further operation that day, a week later he excised the remaining small pile, in the same manner, and then began on the large tumor by inserting the needle of a hypodermic syringe, containing about two-thirds of a grain of the salt into the base of the tumor, injecting a few drops just under the skin, then traversing the pile in its entire length, depositing the solution in the track of the needle to a point just within the skin on the opposite side. He withdrew the needle, inserted a tenaculm, put the pile upon the stretch, and excised it without inflicting the slightest sensation of discomfort except that caused by the entrance of the needle into the skin, much to the surprise and delight of the patient.

This operation suggests to me the probability of the usefulness of this drug in the painful clamp and cautery operation for the removal of internal piles.

After the operation there was an unusual amount of mental excitation, slightly flushed face and contracted pupils. This may have been due to the reaction from his profound depression previous to the operation, as he has not heard of any such effects having been attributed to the drug in the amount used.—*Medical News*, May 23, 1885

SURGERY.

ON THE USE OF THE GALVANO-CAUTERY IN EYE DISEASES, ESPECIALLY IN DESTRUCTIVE PROCESSES OF THE CORNEA.—DR. A. NIEDEN, of Bochum, has written a paper on this subject which has been translated by DR. J. B. MCMAHON, of New York, and is to be found in the *Archives of Ophthalmology* for March, 1885. The application of the actual cautery was introduced into ophthalmic practice about ten years ago, yet it did not take a firm hold on the profession, and it was only after the pathologico-anatomical recognition of the infectious character of most of the destructive ulcerative processes in the cornea, and the finding of the cause of the disease to lie in the mycotic action of fungi in the corneal parenchyma, that the galvano-caustic method was strongly recommended (Sattler, 1883) as a most powerful antiseptic agent.

Dr. Neiden has been using this method for a year past in about 140 cases, embracing serpent or rodent ulcers, scrofulous abscesses, both marginal and central, the frenulum phlyctenulare with a patch of infiltration at the apex, the parenchymatous corneal abscesses occurring in trachoma, and in xerosis corneæ. He reviews a hundred of these cases, and then passes to consider the form of instrument to be employed and its mode of application. He prefers Sattler's small galvano-caustic apparatus to the Paquelin thermo-cautery; his objection to the latter is partly on account of the greater complication of the technical apparatus, a spirit lamp, continuous blowing, etc., being necessary in its employment, and occasioning great inconvenience to physician and patient; but mainly because we cannot get a white-hot tip sufficiently delicate to allow of the nice manipulation necessary for working in a district of no more than a millimetre in extent. This neat manipulation is possible only with the galvano-caustic loop, which is brought to a red heat at the exact moment when it is needed, and cools as quickly, and which, moreover, produces no annoying light-effects by the slight glowing of the thin wire. As a substitute for Sattler's key, Dr. Nieden has had a point made (of which he gives a cut) which makes it possible to use the handle and point as a lever in the hand of the operator, who can then conduct his manipulations more safely and rapidly. The operator holds the instrument, which is connected with a powerful Grenet element, in such a way that the handle rests on some point situated below the eye of the patient, its point at the same time corresponding with the centre of the ulcer. The current is then closed. When the point glows on releasing the button, a slight lever movement is sufficient to press the point rapidly and surely into the tissues to be destroyed, and by a rapid circular movement, without lifting the instrument, the whole border of the infiltration can be destroyed. He gives in conclusion the following résumé:

(1) The use of the galvano-cautery is always indicated in affections of the cornea which take their origin in mycotic infection.

(2) In such cases it gives the most thorough disinfection of the floor and edges of the ulcer, and at the same time stimulates the process of repair.

(3) This process of repair is shown, almost at once, in the increased diffusion power of the corneal tissue, the clearing of the aqueous humor, dilatation of the pupil, and absorption of the hypopyon.

(4) In most cases, also, it does away with the necessity of the corneal incision, because, when the evacuation of the contents of the inner chamber is required, it can be effected by means of the heated loop. Above all, the cautery can be immediately resorted to when the malignant nature of the process is evident, and accords with the maxim, "Principiis obsta."

(5) The operation causes but slight pain, no assistant is needed, anæsthesia is unnecessary, and the treatment is available in the treatment of patients at the polyclinics.

(6) A rapid disappearance of the ciliary irritation is almost always observed. The duration of the healing process is considerably lessened. The final result gives a much less extensive and dense opacity of the affected corneal tissue than is found after the use of the other methods.

(7) The mode of applying the heated galvano-caustic loop is exceedingly simple and easy to master

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THE COMMITTEE ON THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS AGAIN.

Since writing the leading editorial on this subject in the preceding number of the JOURNAL, we have learned, from various sources, of such movements as indicate a very imperfect if not entirely erroneous view of the action taken by the American Medical Association at its recent meeting in New Orleans. The movements here alluded to seem to be founded on the idea that the Association in New Orleans created an entirely *new* committee, authorized to act separate and distinct from the old or original committee appointed by the meeting in Washington. And in accordance with this idea, we learn of one *movement* in behalf of the supposed new committee for an agreement among its members on a time and place of meeting; and of another movement in behalf of the previous committee for an agreement as to the time for it to meet in Washington, thus endangering the development of two committees, meeting at different times and places, between which controversies could be kept up indefinitely. Certainly, if there is any one thing plain on the face of the proceedings of the meeting in New Orleans, it is not the appointment of a new committee, but the enlargement and alteration of the previous committee. The clear and explicit language of the first resolution adopted is as follows:

"*Resolved*, That the committee appointed by this Association to arrange for the meeting of the International Medical Congress in America, in 1887, be *enlarged* by the *addition* of thirty-eight members, one from each state and territory, the army, navy, and marine hospital service," etc.

Does the enlargement of an existing committee by the *addition* of a definite number of new members, make the new members thus added a separate committee? Not unless the English language has lost its meaning. If it is claimed that the second resolution recognized the new additions as a distinct committee, we may admit that in a qualified sense it did, but for a single specified purpose only. That purpose was "to fill all vacancies that may occur by death or inability to attend the committee meetings."

Apprehending, that some of those who had been appointed representatives of states, might not be able to attend the meetings of the general committee, or that vacancies might occur by death or resignation, the Association, in the second resolution, simply provided for the filling of such vacancies, and nothing more. In saying "nothing more," we do not forget the last clause of the resolution, which is, "and to appoint the *officers* of the *Congress*." Such a clause, however, is a nullity from the nature of the case. The Association has no right to appoint the officers of the International Medical Congress, nor the power to confer such a right upon any committee whatever. The International Medical Congress in America, when it assembles, will have full power to elect its own officers. And we cannot help thinking that all allusions to that subject at this early period are premature and in bad taste. Former precedents have rendered it proper for the committee of arrangements, when calling any national or international body to order, to nominate a president and a suitable number of vice-presidents, and usually such nominees are elected. And we trust nothing more than this will be done, or attempted to be done, by any committee in regard to the International Medical Congress of 1887.

Granting all that can possibly be claimed for any special powers conferred by the second resolution adopted in New Orleans, the fact still remains that there is but *one* committee on the organization of the International Medical Congress, authorized by the American Medical Association, and that is composed of the original eight members appointed by order of the Association at its meeting in Washington and the additional thirty-eight authorized to be appointed by the first resolution adopted by the meeting in New Orleans. And the call for any meeting of the general committee which does not include an invitation to all these, equally, will be defective. As all the chief officers and the majority of the executive committee still remain members of the reconstructed committee, it would seem most appropriate that they should take the initiative in calling a meeting of the present general

committee, after due consultation with the members, new and old, as to the most convenient time and place for such meeting. It is useless to deny the right of the Association to reconstruct the general committee, or to authorize a revision of its acts. The American Medical Association, as the only national medical organization composed of delegates from the profession of all the states, and representing in its membership all departments of the profession, through its original committee extended a cordial invitation, in the name of the profession of the United States, to the International Medical Congress assembled in Copenhagen, to hold its next meeting in America. At the same time it conferred upon the committee, in case the invitation was accepted, authority to continue its existence, add to its numbers, and exercise all the powers of a committee of arrangements for organizing the Congress. But the Association, in conferring these powers and duties upon its committee, by no means abrogated its own authority in the premises, nor relieved itself from the responsibility it had assumed to see that the arrangements for the Congress, it had invited, were properly made. If, in exercising the power conferred upon it for adding to its number of members, the committee made those additions on too narrow a basis, by selecting them all from the profession of a few chief cities, instead of from that of the nation, had not the Association a perfect right to withdraw so much of the power it had conferred as was necessary to correct the error, and substitute additions of its own selection? The idea that the powers and duties enjoined upon a committee of arrangements, appointed by a permanently organized association, are in the nature of *vested rights* by which such committee becomes an independent body, self perpetuating, and responsible to no one, has not hitherto been widely entertained in this country. On the contrary, the Association having taken upon itself the responsibility of inviting the International Medical Congress to meet in this country, cannot relieve itself from the additional responsibility of seeing that the arrangements for such meeting are properly made. And the profession in other countries may rest assured that the responsibilities thus incurred will be fully met, and that every needed arrangement will be made in due time.

CHEMISTRY IN THE MEDICAL SCHOOLS.

In our issue of May 2d we referred at some length to editorial articles in the *British Medical Journal* and the *New York Medical Journal*, in both of which it was strongly urged that chemistry be omitted from the list of studies in the medical schools; and it will be remembered that we strongly endorsed the utterances of our contemporaries. We should not have thought it necessary to refer to this subject again at so early a date, but for an editorial article in the *Maryland Medical Journal*, of May 30th, and a letter from a correspondent in California.

Our contemporary in Maryland seems to misunderstand the principal objects for which chemistry is taught to students of medicine; it is scarcely possible to infer otherwise from his editorial article than that chemistry is to be taught to students of medicine for the *chemistry* itself—in order that they may learn chemistry proper. But it is easily seen that this branch is taught in order that the student may comprehend physiology, materia medica, and chemistry as applied to them; not that he may become a professional chemist. "It is asserted as a fact that chemistry is generally taught superficially at the medical schools, so much that the recent graduate only knows enough to pass a parrot-like examination, having been crammed or coached for the purpose, after which he forgets even this little acquirement. In many instances this is undoubtedly true, but the same may be said of various other branches. The average doctor probably knows as little of physiology, for example, after five or ten years' practice, as he does of chemistry, but therefore should instruction in physiology be excluded." To this it need only be answered, that if the average doctor knows as little of physiology after ten (or forty) years of practice as of chemistry it is the fault of the man and not of the study itself or of any system of teaching. There is no more excuse for forgetting physiology than anatomy or materia medica.

"Most medical students are young men of small means, and they are necessarily obliged to economize in time and money. The schools, as time goes, must make their arrangements for the great majority; not for a small minority. Their teaching is, and ought to be for the most part elementary." We cannot see that the income of the student, either as regards time or money, has any relation whatever with the amount of instruction which he should receive before human lives are placed in his hands: we are perfectly well aware that some schools seem to grade their courses on the principle that the applicant should receive his degree whether he has the proper amount of time, money, or brains at his disposal or not—but we cannot indorse it. Any principle which proposes to adjust the teaching of the schools to the students, instead of requiring that the student be adjusted to the schools, and to the necessities of high education, is fallacious in the beginning and product-

ive of evil in the end. We are sorry to see our contemporary holding to the view that the student should be allowed to dictate to the schools. Nor can we altogether agree with the statement that the teaching of the schools "is, and ought to be, for the most part elementary; though this depends to a great extent on the meaning of the word elementary," as here used. It cannot be said that a student's knowledge of anatomy, chemistry, physiology, and materia medica *ought to be* elementary when he receives his degree. In medicine and surgery he has much to learn by experience; but he should have passed beyond the elements of these branches when his school endorses him as fitted to practise his profession. When a student knows only that atropia is the antidote to morphia, without being able to explain why it is antagonistic, his knowledge may be said to be somewhat elementary; but when he can state that *why* clearly and explicitly his teaching has been more than elementary.

It is not proposed that chemistry shall be so far neglected at the medical schools that it will be entirely forgotten; on the other hand, the *British Medical Journal*, in the editorial which formed the basis of our remarks a few weeks ago, urges that the time now given to it shall be devoted to the study of chemistry as applied to physiology and other branches of medicine. This would necessarily pre-suppose a pretty thorough acquaintance with theoretical and practical chemistry; and instead of being forgotten while the student is busied with the study of medicine, its use in laboratory work would grind it in so that it could not be forgotten. Our contemporary says further: "Withal, the reasons for retaining the chair of chemistry in the medical schools greatly preponderate over the objection of incomplete teaching which may apply to other branches as well." Now, one of the objections to retaining chemistry in the schools is, that it interferes with the proper teaching and learning of the other branches; and it is certainly no argument against the abatement of one nuisance to say that others exist. Again: "The student gets his elements in the college only. These acquired, all more or less defective, he is prepared for obtaining proficiency subsequently in the special learning that he may most affect, or that may be most useful to him." This should have been written of, and certainly applies to, the academic schools and colleges. The tree gets its elementary dressing at the saw-mill—the academic school or college; if it is then seen that it can be made into a chair it is sent to a furniture shop—the medical school; if unfit, it is rejected. But no one sends the tree directly to the cabinet-maker's there to receive the whole dressing. The same should be true of the medical school; the applicant for admission should be so "dressed" that he needs no further elementary hewing or sawing; if he does, he should be rejected until he is fitted to begin the study of the proffession. We entirely agree with the *New York Medical Journal*, when it says: "We believe that the time will come when the medical schools will refuse to patch up the defects in the students preliminary education, and will assume that a man who has not a decent knowledge of the sciences, has no right to aspire to be a physician."

In connection with this subject we have just received a letter from DR. A. M. WILDER, of San Francisco, in which he states that chemistry proper was dropped from the curriculum of the Medical Department of the University of California three years ago, although our editorial of May 2d gives the inference that the idea was entirely new. While we are pleased to learn that the school referred to has met with success in this venture, we had no intention or desire of leaving the inference that the idea was new. We followed the lead of our British and New York contemporaries, and mentioned the matter because we believed it worthy of great attention. We are glad that our correspondent has called attention to its success in the University of California, however, as it is, so far as we know, the first practical proof that the idea is correct.

THE FORMATION OF PTOMAINES IN CHOLERA.

Since the discovery of the toxic alkaloids which are formed in decomposing animal matter, the question has arisen as to whether these same alkaloids, or different alkaloids, are not formed during life in certain diseases which seem to terminate as though by some poison. In a recent article on this subject, M. A. VILLIERS says that in spite of the many attempts that have been hitherto made to demonstrate the formation of these alkaloids, their existence does not appear to him to be entirely established. In November, 1884, he examined the organs of two choleraics for these alkaloids; the organs were examined twenty-four and twelve hours after death, respectively, and the results were identical.

By Stas' method he found an alkaloid well characterized by its alkaline reaction, and by its chemical reactions; it was found in considerable quantity in the intestine (as much as 2 centigrammes of the crystallized hydrochlorate), much less in the kidneys, and scarcely traces in the liver and blood. The alkaloid was liquid, of an acrid taste and an odor of

fresh hawthorn. Its reaction was distinctly alkaline, and it was found that it was an energetic base liberated only by alkalies, not by the alkaline bicarbonates. The hydrochlorate is neutral to turmeric paper, and crystallizes in long, fine, transparent needles, which are extremely deliquescent.

For studying the physiological action of this alkaloid the watery solution was used, though the small quantities at his disposal precluded any great number of experiments. Small doses, 1 or 2 centig., injected under the skin of a frog, gave rise to no very well characterized phenomena. When 6 centig., however, were injected under the skin of a young guinea pig, the resulting phenomena were very marked, consisting at first of periodic variations in the cardiac beats. Three-quarters of an hour after the injection the anterior limbs were seized with violent tremblings, which extended to the posterior limbs, and then disappeared. Death took place four days after the injection, the animal having refused food during this time. The autopsy showed some subpleural ecchymoses, slight cerebral congestion, and the heart, arrested in diastole, full of liquid blood.

As has already been said, the alkaloid was found principally in the intestine, in small quantity in the kidneys, and almost completely absent from the blood and liver, thus showing that it was rapidly eliminated by the urine. VILLIERS now proposes to see if the same or similar alkaloids cannot be found, during life, in the organs, in certain other diseases; more particularly typhoid fever. He thinks that the study of these alkaloids may furnish some very useful indications in therapeutics; for is it is true that there are diseases which terminate by poisoning, then this poisoning may be checked in its formation by administering an antagonist to the alkaloid, until its producing cause has disappeared. He thinks it possible that in cholera the continuous action of iodine water may be useful, so as to transform the alkaloid into an insoluble compound; or, if this has a caustic effect on the mucous membrane of the intestine, especially when deprived of epithelism, iodide of starch may be used. How far he may succeed in his attempts it is impossible to predict; each experiment in a new field of physiological chemistry seems but the opening to endless research. Significant in this connection is the following, from Mr. Watson Cheyne's "Report on the Cholera-bacillus:" "In the case of cholera, the cause is apparently situated in the intestinal canal, and, if there is any blood-affection at all, and there seems great reason to believe that there is, it is probably due to the presence of a chemical poison produced by this cause."

SOCIETY PROCEEDINGS.

ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY.

The thirty-fifth annual meeting of the Illinois State Medical Society was held in Springfield on the 19th, 20th and 21st days of May, 1885. About one hundred and thirty members were in attendance. The meeting was called to order on the morning of the 19th, by DR. B. M. GRIFFITH, Chairman of the Committee of Arrangements. The PRESIDENT, DR. D. S. BOOTH, of Sparta, took the chair, and the proceedings were opened with prayer by REV. W. N. MUSGROVE.

His Excellency, GOVERNOR OGLESBY, being introduced by the Chairman of the Committee of Arrangements, welcomed the members of the Society in an address showing his high appreciation of the profession, and its intimate relations to the most important interests of society.

DR. E. P. COOK, of Mendota, delivered a brief and appropriate response.

The PRESIDENT, DR. D. S. BOOTH, then delivered the

ANNUAL ADDRESS,

which contained allusions to many things, some serious and some facetious, but from which we gathered nothing of special importance.

The Society then took a recess until 2 o'clock P. M.

AFTERNOON SESSION.

The order of business being the reports of standing committees, DR. DAVID PRINCE, of Jacksonville, Chairman of the Committee read his

REPORT ON GYNECOLOGY.

He exhibited a great variety of gynecological instruments, but the most important part of his report related to the treatment of chronic inflammation, accompanied by hyperplasia and plastic exudations within the pelvic cavity. In such cases, instead of relying altogether upon the usual hot water irrigations and douches, he strongly recommended the use of the interrupted or faradic currents through the diseased structures.

DR. C. W. EARLE, of Chicago, Chairman of the Committee, then made the

REPORT ON OBSTETRICS.

He arranged the topics embraced in his report under the heads of the Anatomy and Physiology, the Therapeutics, and the Pathology of Midwifery. Under the head of Therapeutics he alluded to the recent paper of Dr. J. Suydam Knox on the oxytocic properties of the cimicifuga racemosa. Dr. Knox had reported a considerable number of cases of labor (150) in which the process had been rendered less distressing, and shortened in its duration, by the internal administration of this drug. Both Dr. Knox and the reporter speak of this as a new use of the remedy. But we think a careful examination of our medical literature will show it to have been used for the same purpose many years since. It is none the less worthy of further trial, however, on that account. Under the same head he referred to the value of

electricity in controlling post-partem and accidental uterine hemorrhages, both in his own practice, and as set forth in a recent paper by Dr. Bates, of Texas. The faradic currents were used.

In the brief discussion which followed this report, Dr. David Prince gave decided preference to effusions of cold upon the abdomen for the arrest of post-partum hemorrhage.

Dr. C. Truesdale, of Rock Island, while commending the immediate operation for laceration of the perineum, thought great care should be exercised in bringing the lacerated surfaces into exact apposition, to prevent the leaving of spaces or pockets in which the lochial discharge or blood might be retained, and undergo septic changes highly dangerous to the patient.

Dr. T. M. McIlvaine, of Peoria, Chairman of the Committee on

DRUGS AND MEDICINES,

presented a report treating chiefly of what he termed "Medicinal and Non-medicinal Therapeutic Agents," but in listening to which we gathered nothing of importance not already familiar to the profession.

The work of the day was closed by a report of some interest on the

PROGRESS OF OPHTHALMOLOGY AND OTOLOGY,

by Dr. W. G. Montgomery, of Chicago, Chairman of the Committee, and Dr. Robert Tilley, an associate member of the same Committee.

In the evening the members of the Society were cordially received in the Executive Mansion by Gov. Oglesby and his accomplished wife.

WEDNESDAY, MAY 20—SECOND DAY.

The Society convened at 9 A. M., the President, Dr. D. S. Booth, in the chair. After notices by the Chairman of the Committee of Arrangements, the subject of

MEDICAL LEGISLATION,

more especially in relation to amendments needed in the laws relating to the commitment of the insane, and in relation to the regulation of the practice of medicine, was discussed for an hour or more.

The call for reports of committees was then resumed, and Dr. E. F. Ingals, of Chicago, read an interesting paper on

THE RELATION OF RECURRENT LARYNGITIS TO CHRONIC POST-NASAL CATARRH.

He claimed that in very many cases the laryngeal affection was simply the sequel or extension of the nasal affection, and gave several cases in which the removal of the latter was followed by entire relief from the former. He advocated the use of the galvano-cautery for removing the more obstinate indurations and hypertrophies of the Schneiderian membrane, the process causing but little pain if the parts were first treated with a solution of cocaine hydrochlorate.

Dr. J. P. Mathews, of Carlinville, presented a patient on whom the operation of

TRACHEOTOMY FOR STENOSIS OF THE LARYNX CAUSED BY ULCERATION FOLLOWING TYPHOID FEVER

had been performed on Jan. 6, 1885. The patient had recovered, but was still wearing the tube. Remarks were made by Dr. Prewitt, of St. Louis, and by Dr. F. E. Waxham, of Chicago, the latter claiming that many cases of laryngeal stenosis could be better treated by tubing than by tracheotomy.

AFTERNOON SESSION.

On assembling at 2 P.M., Dr. A. E. Hoadley, of Chicago, read a paper on the

TOO FREQUENT FEEDING OF INFANTS AS A CAUSE OF DISEASE, AND AGAINST THE USE OF ONE COW'S MILK.

The paper contained the detail of cases, showing that the too frequent nursing or feeding of infants was capable of inducing vomiting, diarrhœa, and serious gastro-intestinal irritation. He thought infants should not be fed oftener than once in two hours, and that the milk of one cow was more likely to vary injuriously in its quality than the milk of several cows mixed, unless great uniformity was maintained in the care and feeding of the one cow.

Dr. C. Truesdale, of Rock Island, read a paper on the

TREATMENT OF TRAUMATIC TETANUS,

relating several cases in which the treatment had resulted in the recovery of the patients. The chief points of importance on which he insisted, were the bringing of the patient as early as possible fully under the influence of different narcotics and nervous sedatives in succession, instead of maintaining the full protracted influence of any one or two articles. He brought his patients first under the narcotic influence of morphine for one day, then physostigma in pretty full doses for one or two days, after which he gave a combination of chloral and bromides. He also saturated the parts around the original seat of injury or wound, as early as possible, with a six per cent. solution of carbolic acid used hypodermically.

The next paper read was an interesting one on

THE TREATMENT OF EPILEPSY,

by Dr. D. R. Brower, of Chicago. He did not propose new remedies, nor place emphasis on any specific treatment by bromides or other remedies; but rather encouraged a more careful search for the causes and actual pathological conditions of each case, and the rational adjustment of remedies, whether medical or surgical, to the indications afforded thereby.

During the evening, the members of the Society were elegantly and very pleasantly entertained at the residences of Drs. H. B. Buck, F. L. Mathews and B. M. Griffith.

THURSDAY, MAY 21, THIRD DAY.

The Society convened at 9 A.M., the President in the chair. Reports and papers were read and briefly discussed by Dr. H. J. Reynolds, of Chicago, on the *Treatment of Eczema;* Dr. W. A. Byrd, of Quincy, on *Surgery;* Dr. W. H. Veatch, on *Obstruction of the Bowels;* and Dr. Bassett on *Medical Education.*

We have thus given only an outline of the more important doings at this annual meeting of the Society, which was altogether an interesting and profitable one.

OFFICERS, AND CHAIRMEN OF COMMITTEES FOR THE ENSUING YEAR.

President—William A. Byrd, Quincy.

1st Vice-President—W. T. Kirk, Atlanta.
2d Vice-President—A. Wetmore, Waterloo.
Permanent Secretary—S. J. Jones, Chicago.
Assistant Secretary—Hiram Luce, Bloomington.
Treasurer—Walter Hay, Chicago.
Committee of Arrangements—J. L. White, Bloomington.
Practice of Medicine—M. F. Bassett, Quincy.
Surgery—C. Truesdale, Rock Island.
Odstetrics—W. W. Jaggard, Chicago.
Gynecology—J. H. Etheridge, Chicago.
Drugs and Medicines—E. B. Montgomery, Quincy.
Ophthalmology and Otology—Robert Tilley, Chicago.
Necrology—E. Ingals, Chicago.
Orthopædic Surgery—C. E. Webster, Chicago.
Diseases of Children—F. E. Waxham, Chicago.
The Microscope and Gynecology—O. B. Will, Peoria.
Dermatology—Henry J. Reynolds, Chicago.
Chairman Committee on Publication—J. F. Todd, Chicago.
Physiology—A. Wetmore, Waterloo.
Insanity—A. T. Barnes, Bloomington.
Committee on Legislation for Insane—Walter Hay, Chicago.
Committee on Medical and Sanitary Legislation—B. M. Griffith, Springfield.
Biographical Committee—J. H. Hollister, Chicago.
On the Influence of Appreciable Meteorological and Topographical Conditions on the Prevalence of Acute Diseases—N. S. Davis, Chicago.

CINCINNATI ACADEMY OF MEDICINE.

Stated meeting, April 27, 1885.

The President, SAM'L NICKLES, M.D., in the Chair.

DR. GEORGE W. RYAN read a paper on

THE TREATMENT OF POTT'S DISEASE.

He adopted the decision of Stillman of the various mechanical methods in use at the present time, viz.: Simple friction, extension by traction, local extension, and backward traction. The apparatus generally found in the shops represented the idea of simple fixation in an imperfect degree. He has had a large experience with the Knight apparatus of this class, and thought very favorably of it in a certain class of cases. It is a simple steel frame, easily made and readily fitted, and capable of excellent service in diseases of the lower dorsal and lumbar regions, and when used as a base in cervical disease. The method of extension by traction was then reviewed, the plaster treatment and its substitutes representing this class. The suspension process, the essayist held, was unwise when bony destruction had taken place, was useless, as it did not in any way remove or lessen the true curvature, but only obliterated compensatory curves. It was generally uncomfortable and often cruel, but fortunately owing to the reflex, muscular contraction of the spinal muscles had done little harm. The reader spoke of the great benefits which have been derived from the plastic treatment in its immediate results, but could not look upon it as the best method of treating Pott's disease. It certainly had many advantages, but also many disadvantages, and the essayist believed it to be a failure except in lower dorsal and lumbar disease, where any simple support was equally as satisfactory.

The method of "local extension" by means of the divided jacket, introduced by Wyeth, of New York, the speaker thought had not come into general use. It was exceedingly questionable whether local extension could be secured in the region designed for the application of the method; in fact the speaker thought it impossible with an apparatus with which the patient would be at all comfortable. The principles of the Taylor spinal assistant, that of a double lever with the fulcrum at the seat of disease, was held to be the most efficient means of managing this disease. Something more than simple fixation was required in the cervico-dorsal and upper dorsal regions, and the application of this principle was the readiest and simplest method. The treatment by recumbency with the cuirass, the reader thought, was an excellent method in infants under two and a half years, and related a case of upper dorsal disease in which an excellent result had been obtained by its use.

Concerning the abscesses of this disease, the essayist thought that nothing should be done unless hectic was present, or if the abscess was large the aspirator should be used. Open incision was condemned in any circumstance.

DR. D. S. YOUNG said, that he had been disappointed in a great measure in the plaster, but did not believe that any single method offered the best treatment for all cases. He thought that there was a great deal of luck in the result obtained in certain cases. He could agree with the essayist in his statement concerning the management of abscesses. He did not think the question of weight was a reasonable objection to the plaster, as he was in the habit of applying light jackets with satisfactory results. He did not agree with the statement that the suspension process was not in general use, as he believed the majority of practitioners still used it.

DR. CHRISTOPHER reported a case of cervical trouble, which was thought might be Pott's disease, in which he had enveloped the neck and head to the eyebrows with the bandage, securing a support which allowed only the movement of the lower jaw. The result was a very gratifying one, a complete cure taking place. He did not believe he could have secured such an efficient support with the jury-mast.

DR. FRANK TAYLOR described the method used by Dr. Coffman, of this city, in molding the leather over a cast secured by filling a plaster jacket after its removal with soft plaster.

Dr. GILES S. MITCHELL spoke of the difficulties and painfulness of suspension in young children, but was inclined to regard the plaster treatment much more favorably than the surgical, and in this connection reported two cases of lateral curvature in girls of eight and ten years, respectively, in which the curvature had disappeared under its use.

DR. RYAN, in closing the discussion, said, with reference to Dr. Christopher's case, that the diagnosis

of Pott's disease the atlas or axis was always difficult, but judging the case more perhaps by the result than anything else, said the case did not seem to be one of this disease. The method of support had certainly been a most efficient one, and the result was gratifying, still he thought the method cumbersome, and one that few patients would permit. The same result, he thought, might have been obtained with a jury-mast or Taylor chin-piece. The method of molding the leather jacket spoken of by Dr. Taylor had been introduced by Dr. Ap Morgan Vance, of Louisville, some three years ago, and was that in general use. Concerning Dr. Mitchell's cases he thought the result gratifying, but rather unusual. He was inclined to think the cases rachitic rather than true rotary lateral curvature. He thought the plaster treatment was much less adapted to lateral curvature than to spinal caries, as under its use in the first-named distortion, the muscular exercise which was a necessity in its successful management could not be obtained.

Dr. C. W. Palmer reported a case of

PAPILLOM OF THE BLADDER.

Patient, an American, aged 50, married, a multipara past the menopause, presented herself in January, 1884. She complained of drysuria hæmaturia and vesical tenesmus. Physical and microscopical examination showed papillæ, blood corpuscles and mucous strings, but no tube casts. She was put on treatment, and in March, while under ether, the urethra was dilated, the finger introduced, and a papilomatous growth, half as large as a hickory nut, was discovered. This was removed by the finger-nail. The bladder was washed out and the patient made a comparatively good recovery, remaining in this condition for several months. Her old symptoms gradually returned, however, and became so aggravated that another and more radical operation was determined upon.

In March, 1885, just one year after the first operation, with the assistance of Drs. Zinke, McKee, and Kebler, Dr. Palmer made a vaginal cystotomy. He found a growth as large as the thumb, which he removed. The bladder was allowed to remain open, and the urine to flow at will. No bad symptoms followed the operation except a slight elevation of temperature for one day. She soon began to feel quite comfortable, and has remained so up to the present time, six weeks after the operation. The urine flows at times through the opening of the bladder, sometimes through the urethra. The reader recommended vaginal cystotomy, as compared with dilatation of the urethra. It requires less skill, is done in less time, there is less danger attendant upon it, the recovery is more rapid, and the removal of the abnormal growths more satisfactory and complete. Chronic cystitis is often present in these cases. The complete rest given by this continuous drainage of the bladder is found to be very advantageous. The incision is usually allowed to remain open. It sometimes heals spontaneously, and again remains permanently patulous. He could not promise that the patient would remain in her present favorable condition. The papilioma, he thought, changed sometimes into an epithelioma.

Stated Meeting, May 4th, 1885.

Dr. W. H. Kelley read a paper on

ANTIPYRESIS.

A high fever, he said, is not dangerous in itself, but if allowed to continue for some time, structural changes occur which may be followed by death. These changes are dependent upon the rapid oxidation of the nitrogenous elements of the body, and the deposition of fat in their stead. Microscopical and chemical examinations show that this tissue is not always pure adipose, but compounds of two varieties: in one the normal striæ are obscured or are invisible, and within the sarcolemma are numerous small granular bodies, highly refractive, and giving to the muscular tissue, by transmitted light, a dark appearance. In the other variety the striæ are also obscured, and this tissue has been replaced by a colorless, homogeneous mass resembling wax.

The great danger in hyperpyrexia is cardiac paralysis, to prevent which is the great object. The nervous system is much affected, and instead of the active delirium in the early stages there may be low, muttering delirium, gradually passing into stupor and death from cerebral paralysis. A moderate fever of long duration will produce more serious changes than a high temperature of much shorter duration. In the greater number of cases, the fever must be considered as a disturbance of the heat-producing or heat-losing functions. Quinine, as is well known, diminishes the oxygen-carrying power of the red blood-corpuscles, which materially interferes with and checks the tissue-metamorphosis. The treatment is principally by means of quinine, salicylate of sodium and cold. Quinine is probably not only the most popular antipyretic in use, but also the most reliable. The reader recommended that quinine be given in doses of gr. xx–xlv, or salicylate of sodium gr. lxxv–cx, within three hours, and cold baths repeated often enough to keep the temperature below the danger line, or even near the normal.

Dr. J. T. Whittaker said that cold baths cannot be used in private practice in this country, but are very useful in hospitals. He did not think that less than gr. xx of quinine was an antipyretic, and thought that Dr. Kelley had not attached sufficient importance to alcohol, which is one of the most efficient antipyretics.

Dr. Young never uses quinine in doses less than gr. xx or xxx. He uses cold sponging with good results, but is not very much in favor of cold baths.

Dr. Palmer finds that gr. x of quinine act very well. He uses the bisulphate, in the form of compressed tablets. He has great faith in tincture of veratrum viride; it reduces both the temperature and the pulse.

Stated Meeting, May 11, 1885.

The President, Sam'l Nickles, M.D., in the Chair.

Dr. Schoolfield reported a case of

FLESHY MOLE.

Mrs. M——, æt. 34, Vpara, youngest child 3 years,

oldest 11; had never miscarried; first seen on December 4, 1884, when she was in severe labor pains. She thought that she was not pregnant; menstruation was absent in the previous April and May, but had returned in June. When seen there was a grumous, bad-smelling discharge from the uterus. The abdomen had not increased in size since the end of the third month. The patient was emaciated, and the abdominal walls were sunken. The tumor found was as large as a child's head and as hard as a rock, and was presumed to be due to some disease of the placenta. On examination, the cervix was found to be dilated, and a large fleshy mass presenting, but no fœtus. The mass was expelled an hour later. The placenta was as large as at full term. Numerous varicose veins were found. The patient stoutly denied any attempt at abortion.

DR. SCHOOLFIELD also reported a case of

HYDATIDIFORM MOLE.

Mrs. S——, a robust German, æt. 51, menstruated last in December, 1883, previous to which time menstruation was regular. She was first seen on April 7, 1885. The patient felt quite well, with the exception of a sense of weight in the lower part of the abdomen, and dragging pains. She was a woman of full habit. Examination showed the presence of some hæmorrhage. Dr. Schoolfield thought that it was a case of mucous polypus. A sponge tent was introduced, and a dose of ergot given; this was soon followed by the expulsion of a hydatidiform mole. The hæmorrhage ceased, and the patient made a perfect recovery. The points of special interest are the age of the patient and the length of time during which the mole was retained—sixteen months.

DR. G. S. MITCHELL thought the subject of moles quite as interesting to the general practitioner as the specialist, as we are all likely to meet with them at some time. Hydatidiform moles are comparatively rare. As regards the etiology, he believed that age has more to do with it than the number of children which the woman has borne. Hydatidiform moles are believed to be due to a degeneration of the chorion and villi; certainly the affection cannot arise unless the patient be pregnant, and he claimed that it cannot originate after the end of the third month of pregnancy. It usually occurs in women of the cancerous or syphilitic cachexia, and is likely to recur. Cazeaux, in the last edition of his work, reports a case in which a healthy fœtus was found alongside of a hydatidiform mole. As regards treatment, he thought it better to wait if possible; but if labor pains and hæmorrhage occur, immediate action should be taken.

DR. J. T. WHITTAKER thought it rather remarkable that two such unique cases should be reported at one meeting of the Academy. There is danger of sepsis if the mole be not removed. He remembered a case in which a mole remained undiscovered by the attending physicians for six months, and sepsis occurred. The mole was then discovered and removed, and the patient recovered. Eight or ten cases have been reported in which a mole has been found with a child in the uterus also.

FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

(FROM OUR OWN CORRESPONDENT.)

CHOLERA NOTES.

It is said that in view of the report of the English cholera commission, Koch will shortly leave for India, to investigate further into the vital questions at issue. In addition to Johne, Buchner (*Munch Artzl Intell.* 1885, 449) also finds such a difference between Koch's and the Finkler-Prior organisms that it is impossible to confound the two. This is especially true of the bacillus when under culture. Koch's culture makes but a slender thread strand, in the gelatine, with ruffled edges; the Finkler-Prior, on the other hand, is quite fat and bulbous.

Doyen (Soc. Biol. Dec. 13, 1884) reports many forms of bacteria, in cases of cholera, which he has observed under culture and microscopically. But his report is faulty, his experiments negative, and his conclusions illogical. His cholera bacilli were probably the results of decomposition. Villiers (Comptes Rendus, 1885, 91) has found a ptomaine in the bodies of two persons, who died of cholera. It was in excess in the intestines, and in less quality in the heart's blood, liver and kidneys. It is a liquid with an acid taste. It is alkaline, with an active base set free by the alkaline. Iodide of mercury and of potassium give a white precipitate with its solutions and those of its salts. Picric acid gives a yellow, and chloride of gold a yellowish-white precipitate. Concentrated solutions give a white precipitate with tannia and bichloride of mercury, but chloride of platinum and bichromate of potash give no precipitate. Ferrocyanide and perchlonide of iron give a very slight and slowly appearing precipitate. Sulphuric acid placed in contact with the alkaloid gives a very faint and quickly disappearing violet color. The chlorhydrate of the alkaloid is neutral to litmus paper. It crystallizes in long fine transparent needles, which are exceedingly deliquescent. Then follow certain physiological experiments limited in number by the small quantity of the alkoloid at command. The effects produced were a remarkable variation of the pulse-beat, contractions of the limbs, anorexia, and death in four days of the animal experimented upon (rabbit.) It is to be regretted that Villiers did not examine the body of the dead rabbit to find out if the ptomaine had been reproduced. The author proposes to examine into the production of these poisons (ptomaines) in other acute diseases, especially typhoid fever. If he can show that these diseases terminate by the formation of ptomaines, he thinks it may be possible to administer antidotes continuously, until the cause has disappeared. In cholera, the iodide of starch or iodine-water, would form an insoluble compound with the alkaloid. Pouchet (Comptes Rendus, 1885, 220) gives a further account of this alkaloid, and the way in which he himself was poisoned by it in its preparation. Pettenkofer (*Deutsch. med. Wochensch*, 1885), offered to produce a gastro-intestinal catarrh in himself, and then to swallow any reasonable amount of a pure culture of the cholera bacillus.

In a late number of the *Westminster Review*, Dr. John Chapman advances the theory that cholera is essentially a nervous disease, which is non-contagious, and springs from a vitiated or impaired condition of the sympathic system. The article is exceedingly ingenious, well written and graceful, but absolutely valueless in a scientific view, since it regards intercurrent phenomena, as a *primary* cause, and cites as proof the exaggeration of nervous detail which always obtains in cholera epidemics; forgetting that these physic panics, depending upon an "expectant attention" directed into depressing channels of thought, that these fanatical superstitious and hallucinations are not themselves causes of the disease, but are rather engendered by *fear* of the disease. The system thus weakened is an admirable field for the implantation of the germ. Dr. Chapman's theory is about on a plane with that which sees a mere disturbed nervous condition in hydrophobia, which the patient creates in himself. At a discussion in the Munich Medical Society, von Pettenkofer, in referring to the book of Dr. James Cunningham (Cholera; What can the State do to prevent it? Calcutta, 1884), said that the author was for thirty-three years an active medical officer and physician in India; that for twenty years he had been the head of the medical department there. He was vigorously opposed to a belief in the *contagiousness* of cholera and its practical consequences. Cunningham proves conclusively that quarantines, inspection, blockades, and isolation of persons suffering with cholera, disinfection of the excrement, etc., have been shown to be of no purpose. Neither in place nor in time has the development of the railroad system in India fostered or intensified the epidemic. During the epidemics, the cholera spread in directions where there were no railroads whatever, and often in directly opposite directions. The breaking out of cholera among pilgrims in different places has no influence upon spreading the disease. For example, in the year 1867 and 1879, three pilgrims (attacked with cholera, many of them dying before they returned home) spread themselves all over India. The epidemic followed a certain well defined course. Quarantines were not advised by the Indian Government, because it had been previously shown that they were of no service and entailed many disadvantages. According to experience in India, cholera epidemics are never caused by drinking water. The drinking water theory contradicts the complete history of the cholera in India. The only preventive measures of value are *cleanliness*, good *sewerage*, *pure water*, and *fresh supplies*. The local danger, and not its contagiousness, was the only thing to be feared. v. Pettenkofer gave many statistical tables showing the epidemics in Prussia in 1848—1860, as well as in Saxony and Bavaria. The fact was developed from these tables, that certain months, (especially April), favored the disease. Then this "seasonal" regularity is incompatible with the idea that the disease, if transferred from the diseased to the healthy, as the case most undoubtedly with syphilis (for example). The speaker concluded by asking the question: "What would happen if the Government regulations were to be based upon Cunningham's views?" He reminded the society of the first cholera epidemic in Europe. After Prussia had spent much money upon plans based upon the theory of contagion, and after the "wild measures of Dr. Rust," and after much misery had been caused among the people, many forsook their original belief in contagion and accepted Cunningham's views, that the intercourse of men had nothing to do with the spreading of cholera, and that the disease developed out of the "Genius Epidemicus." The Kingdom of Bavaria made an antagonistic experiment which, to the speaker, seemed to be of much more value, than those now being made upon animals. The cholera was officially declared to be non-contagious, and when the statistics of these cities which had accepted the view of contagiousness, were compared, the results were largely in favor of Bavaria. The lecturer closed with the *cæterum censeo*, that the Government should refrain from wasting millions upon developing a theory of contagion. That it should keep trade open, and that appropriations should be expended upon sanitary improvements, and not upon useless cordons and quarantines.

Dr Emmerich then spoke of his researches in Cholera bacteria, showing numerous preparations and illustrations. The question of the day is upon Koch's vibro. It was based upon a result, found to be universally true, that the Pilze is not to be found in the blood of the cholera patients. His researches in Naples, led him to another conclusion, and he must declare after having elaborated his researches in different directions, and after examining nine cholera cases in Naples, that Dr. Koch's vibrio, which is found in the intestine, and they are rarely in the peritoneum, and never in the interior of the viscera, can only be considered as of secondary importance. It may possibly be one of the first inhabitants of the human digestive structure, of which only a few have been recoginized. Perhaps it only developes under certain conditions of the cholera process. The lecturer placed great emphasis upon the results of his studies in Naples. Further researches have confirmed these results, and brought new and important facts to light; von Sehlen and Hans Buchner joined him in these investigations. The first question which suggests itself: Does the Pilze which is derived from cholera exist as a pure body in the blood and organs, or is it a mixture of several fungi. The first is of great pathogenic importance, if the second be true, it would render the importance of the first doubtful. The results of the Naples investigations were that in the kidneys, spleen, mesenteric glands, brain and blood of the nine cholera cases, the same Pilze as pure culture were found. And for the time being, we will call these "Neapolitan cholera bacteria." The microscope showed that the colonies from all these cases were similar. Another strong proof of the presence of pure culture of the Neapolitan bacteria, in the organs of the cholera victims is afforded by an examination of the section method developed recently by v. Sehlen. In such sections examined from Naples and India, these bacteria were found in such abundance and were so widely distributed, that death must have resulted from their presence. The Neapolitan cholera-bacteria can be considered as the

cause of typhus. Now how is it possible that other investigators should have overlooked these bacteria? Koch, however, wrote from Egypt (before the "comma-bacillus" was known, this being first reported from India) that the bacteria which he found in the intestinal wall at the time were undoubtedly the primary cause. The French committee also found their bacteria almost constantly in the intestinal wall and intestines. As to the biological conditions of the Neapolitan cholera-bacteria, according to Buchner, it approaches nearest to the typhus bacillus. It can stand twelve days freezing at a temperature of 24° Celsus, and four weeks drying in a room at living temperature without detriment.

The Madrid papers are full of the immunity from cholera afforded by vaccination, demonstrated by the experiments of a young Catalonian doctor, Jaime Ferran. For some years, by his industry and original studies in Tortosa, he had attracted attention. The Royal Academy of Medicine, in Madrid, distinguished him among its honorable fellows. He was sent to Toulon and Marseilles to study with Germans, French and Italians the epidemic of cholera, and to investigate Koch's theory. Returning to Spain, he continued his investigations, and found that Koch's theory was only partially correct. He discovered that when the comma bacilli were mixed with animal gall, or with the secretions of the human stomach, little eggs were deposited, and these he takes to be the actual cause of cholera. He then commenced his experiments with vaccination, using the forearm —sometimes both forearms. He so vaccinated himself, several other doctors, and many friends. After four or five hours the fever rose, the pulse being 114-120, the temperature 40 C. The patient complained of being weak and feeling badly, lost appetite, vomited, had cramps, and could not sleep. In forty-eight hours all symptoms disappeared. Vaccination among children, even up to 8 cc. of the *materies morbi*, proved to be without danger. The Royal Academy has appointed a commission to investigate Dr. Ferran's experiments. H. R. B.

PARIS LETTER.

Prescription Writing—Iodine Injections in Hydrocele—Administration of Iron, Quinine, the Bromides, and Opium—Relations between Syphilis and Aneurism.

However superfluous it may seem, to expatiate on the importance of writing out prescriptions properly, I cannot refrain from adding a few more particulars to my last communication on the subject. As regards the time that should be chosen for the administration of a drug, Professor Germain Sée considers it of more importance than would at first sight appear. For example, if a purgative pill were to be given on an empty stomach, the patient will almost certainly vomit it, as it will not meet with its dissolvent in the stomach; that a resinous substance, of which most pills are composed, requires an alkaline medium to dissolve it, and this is found at the commencement of the small intestines. Iron should be taken at meals, as all preparations of that metal, whatever be their form, are precipitated at the commencement of digestion, and find in the gastric juice the elements necessary for their re-solution. The bromide of potassium and opium take a certain time to act, and if consulted by a patient for insomnia caused by prolonged head work, the bromide of potassium should be administered in two doses, at 4 o'clock in the afternoon and at 8 in the evening; for if he took only one large dose at 9 in the evening, as is frequently prescribed, he will commence to sleep only in the morning just at the time when he may require to attend to his occupations. For a patient that is annoyed with a troublesome cough at night, and if the physician thinks proper to prescribe an opiate, it should be given in two or three doses, beginning at 2 o'clock in the afternoon, for if taken between 3 and 10 at night the patient will be relieved only the next morning. The hour of administration of the sulphate of quinine should be fixed according to the time necessary for the drug to produce the totality of its antipyretic effect, which commences to manifest itself about four or five hours after its ingestion, but it is completed only in 8 or 9 hours and its maximum effect is maintained for nearly 15 hours after its administration. For this reason Liebermeister recommends, in typhoid fever, that the quinine should always be given in doses of 1 to 2 grammes at 5 o'clock in the evening, and in one single dose, to act on the remission that usually takes place, in the morning. This precept, however, is considered too exclusive, as there are cases in which it would be more urgent to lower the vesperal temperature. Professor Sée has therefore modified Liebermeister's practice, and prescribes 1 gramme of the sulphate of quinine at 6 o'clock in the morning to act on the temperature of the evening; another gramme is given at 5 or 6 in the evening to lower the temperature of the next morning. As regards the administration of salicylic acid, or any of its preparations, as an antipyretic in the treatment of typhoid fever, Professor Sée is opposed to it, owing to the complications which are generally met with: alcoholism, delirium and cerebral accidents, renal affections, weakness of the heart, all which being, therefore, positive contra-indications in the treatment of typhoid fever by the salicylates.

Posology should also be properly attended to, and the doses of drugs should be varied and graduated according to age, and according to the effects of each remedy, which experience alone can indicate. The administration of opium to children requires great discrimination, and although Trousseau proscribed it altogether from his infantile practice, Professor Sée considers that in very minute doses, almost homœopathic, it may be safely given to children.

The sulphate of quinine and the salicylate of soda are, on the contrary, well borne by young children. In certain cases M. Sée would administer as much as 20 centigrammes of quinine to a child over two years of age, and, following the example of Dr. Archambault, he prescribes 4 grammes, and sometimes over 5 or 6 grammes, for articular rheumatism in young children, and in this way cuts short the disease in a few hours.

Dr. Tillaux, Surgeon to the Hôtel Dieu, lately

delivered a clinical lecture on the dangers of repeated injections of tincture of iodine in hydrocele, which he exemplified in the following case: A man, æt. 60, who had been suffering from hydrocele for two years, and who had been treated by injections of tincture of iodine. The first injection having produced no apparent effect, a second one was made a fortnight later, and the operation was followed by an abundant extravasion of blood into the cavity of the tunica vaginalis. Commenting on this accident, Dr. Tillaux stated that, in case of failure at a first attempt, the injection must not be repeated before six or eight weeks have elapsed. When the second injection is made too soon, hæmatocele is likely to occur in consequence of the formation of vascular pseudo-membranes.

Dr. Tillaux also pointed out the danger of the injection of tincture of iodine or any other irritating liquid in hydrocele in children, and recommended instead the application of a lotion of the chloride of ammonium, with support to the parts.

In his thesis for the doctorate, Dr. Verdier chose for his subject, "The Relations between Syphilis and Aneurism," in which the author has come to the following conclusions: Syphilis is a frequent cause of various arterial lesions, which may be followed by a dilatation of the vessels. On an average, aneurisms appear about eleven years after the onset of the disease. Iodide of potassium, he states, is useful, but a complete cure is a rare occurrence, and the disease is often fatal. A. B.

DOMESTIC CORRESPONDENCE

NEW YORK LETTER.

(FROM OUR OWN CORRESPONDENT.)

Opening of the Carnegie Laboratory—New York State Medical Association; Meeting of Fifth District Branch—Ligation of the external Carotid—Section on Practice of Medicine of the New York Academy of Medicine—Acute Peritonitis.

This has been a week of special interest and activity in the medical society world. On Monday evening, the New York County Association held its first meeting at the new Carnegie Laboratory, which had been opened for the inspection of the profession on May 14, from 8 to 10 P. M., when the directors and assistants exhibited pathological specimens, as well as bacteria, and the processes of their cultivation. There were no formal exercises on this occasion, but at the meeting mentioned, the principal paper of the evening was by Prof. E. G. Janeway, who spoke of the laboratory as follows in the opening of his address:

"Having been invited by your President to read a short paper this evening, I have chosen the subject of 'The Advance in our Knowledge of the Etiology of Disease,' because of some of the circumstances attending the present occasion. The Association meets to-night in a building which is to be devoted to the study of the anatomy and etiology of disease. That it is admirably adapted for the purpose I think all will admit. No greater inducement to study exists than that innate desire for knowledge, which can best be compared to the hunger for food which seizes upon the starving; a desire which will not know fatigue or care for surroundings, provided that in any way it may attain the object of its quest. But oftentimes those well adapted for research and investigation have been absolutly unable to succeed from the want of the necessary means, appliances, and place for such work. The German government has been very far-seeing in this matter, and has subsidized the study of disease—to use the term in its scientific sense—by erecting laboratories, endowing professorships, and paying the expense of the work done in studying pathological anatomy, as well as of experimental investigation. The result of this course is, no doubt, familiar to you all. Germany has taken the lead in this matter, and students from all parts of the world have flocked to her institutions of study. One cause for their success has often been lost sight of, but the mere mention will no doubt, suffice to show how others are handicapped in the race. Anyone in this country, unless possessing a private fortune, must give up a large share of his time and thought to acquiring the means of subsistance and for the apparatus and other expenses of his work; and this must be either by teaching or practice. He is thus subject to interruptions, and is obliged to work at scientific subjects, not when fresh and vigorous, but when weary and jaded and hitherto, too often in places little adapted to encourage work under such advantages. But, thanks to the liberality of the gentleman whose name this building, in which we are met bears, one of the great obstacles to successful labor has been overcome, and we trust that he may never have occassion to regret his gift; but may, on the other hand, live to see the fruition of his hopes."

Later in the evening Dr. H. M. Biggs, who has recently returned from Germany, gave a demonstration of the three comma bacilli: the month comma of Lewis and Miller, the cholera-nostras comma of Finkler and Prior, and the Asiatic-cholera comma of Koch.

On the following day, May the 19, the second scientific meeting of the Fifth Branch of the New York State Medical Association was held at Poughkeepsie, where a number of interesting papers were read. The first was a surgical paper of great value by Dr. Joseph D. Bryant, Professor of Anatomy at the Bellevue Hospital Medical College, and Surgeon General of the State. It was on three cases of ligation of the external carotid, in two of which both vessels were tied simultaneously. The first was for the cure of an aneurismal tumor in front of the left ear, and the other two for the starvation of malignant growths; and the conclusions which Prof. Bryant derived from these were as follows: 1st. That ligation of the external carotid artery, with independent ligation of its branches arising from the first inch of its trunk is a safe and commendable operation; 2d. That when the facial and lingual arteries do not arise singly, or by a common trunk from the first inch of its course, the branches arising at the bifurcation

should be tied; 3d. That a simultaneous ligation of the external carotids is a rational preparatory measure to operations involving the parts supplied by their branches, where dangerous hemorrhage is found; 4th. That simultaneous ligation is advisable to diminish the rapidity of the development of extensive malignant growths when nourished by the branches of the external carotids; 5th. That the ligation of one or both external carotids for the cure of aneurismal formations of the branches of the same is not warranted as an independent measure; 6th. That ligation of the common carotid should not be done for the cure or for the arrest of morbid conditions involving the external carotid with its branches, except as a final resort.

The other papers read were: "Hypertrophy of the Prostate Gland," by Dr. J. G. Porteous, of Poughkeepsie, (who presided in the absence of the President, Dr. J. C. Hutchinson, of Brooklyn); "Diphtheria and Its Treatment by Calomel," by Dr. S. J. Murray, of Brooklyn; "Treatment of Cerebral Hemorrhage and Embolism by the Internal use of Carbonate of Ammonia," by Dr. R. C. Van Wyck, of Dutchess county; and "Report of a case of Rheumatic Metastasis to the Brain ending Fatally," by Dr. C. S. Wood, of New York.

The same evening the first regular meeting of the recently reorganized Section on the Practice of Medicine of the Academy of Indiana was held, when Dr. Andrew H. Smith read a paper on "The Irregular Manifestations of Malaria," after the discussion of which there was a general discussion on "The Sources of Infection and Limits, as to time, of Infection of Scarlet Fever and Measles." Dr. Alfred L. Loomis is Chairman, and Dr. E. Darwin Hudson, Jr., Secretary, of the Section.

At the meeting of the Academy on Thursday evening, May 21, Dr. T. H. Burchard read a paper with the title, "Observations on the Treatment, Medical and Surgical, of Acute Peritonitis," in which he claimed that the mortality from this, the most fatal of all acute inflammatory diseases, was unnecessarily high. A knowledge of the cause in any case was essential to its satisfactory treatment. Everything pointed to the fact that there was no such disease *per se* as peritonitis; the so-called idiopathic cases not being of this character in reality. He then alluded to the alleged difficulties of diagnosis, and stated that a correct diagnosis was possible even when the difficulties were apparently very great; in proof of which he cited several instances which had occured in his own experience. Sound surgical teachings demanded that it should by all means endeavor to remove the source of irritation, whatever it might be, and the earlier this was done, as a rule, the better. In these very halls, he said, Dr. Sims in the last paper which he ever read before the Academy had sounded the key-note of the correct treatment. The peritonæum was exceedingly tolerant of surgical interference if proper precautions were taken, as had been demonstrated in the large number of Tait's operations which had been performed during the last two or three years. Tait himself had performed no less than forty laparotomies during commencing peritonitis, and without a single fatal case. He then quoted a large number of cases of operations from various sources, and completed the list with the report of a case of his own. This was one of omental abscess which he saw at Saratoga, in consultation with the late Dr. F. D. Lente, shortly before his death, and in which he performed laparotomy with a favorable result. Although distinct fluctuations could not be obtained, the aspirator was resorted to, but failed to withdraw any pus. An incision was then made in the median line from one inch below the ensiform cartilage to the umbilicus, with antiseptic precautions. Fully a gallon of warm carbolized water was injected among the matted intestines, and, iodoform having been dusted lightly over the walls of the abscess, two drainage tubes were placed in position.

This case, with the others by diffierent operators which he had collected, made forty cases in all, with twenty-four recoveries, or 60 per cent. of recoveries in otherwise hopeless cases. By way of contrast, Dr. Burchard reported a fatal case of ulceration of the vermiform appendix. He was called to see the patient in consultation, and having made the diagnosis of perforation, he advised immediate operation. At this time the condition of the patient was comparatively good, and the operation was refused. Twenty-four hours afterward, however, he was again called in, and was now urged to operate; but by this time it was too late (the condition being hopeless), and a fatal result rapidly ensued.

In speaking of the medical treatment, he said that while opium had been rightly considered our sheet-anchor in this disease, yet there were certain conditions in which it was requisite to use it with very great caution. One of them was the state of initial collapse, a subject which had been too little studied, but which was one of much importance. As this collapse was dependent on a vaso-motor paresis, large doses of opium were likely to prove extremely dangerous, though in small quantities the drug might be used with advantage. In this connection atropia was the efficient agent that could be employed, and whenever there was danger of cardiac or respiratory failure, he thought that the morphia should be used in combination with atropia, ammonia, digitalis, or alcohol. He urged the hypodermic method of using morphia as the most accurate and satisfactory, and recommended the iced coil as by far the best local application.

P. B. P.

THE MANAGEMENT OF SHOULDER PRESENTATIONS.

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION:

Dear Sir:—Dr. E. F. Wells, of Minster, Ohio, reported a "Case of Shoulder Presentation" in the JOURNAL of April 11th. I was much interested in his report, having reported three typical cases in the *American Journal of Obstetrics* in 1881, under the title of "Genu-Pectoral Position as an Aid to the Rectification of Malpresentations of the Fœtus."

I wrote to Dr. Wells asking the source of his authority for calling it "an old and long-forgotten position," and I enclose his reply. The practicability of the position is, however, the main point to be dis-

cussed. My cases were cross-positions—shoulder and one hand protruding through vulva. Since that time I have corrected several malpositions by this method; it is more easy than podalic version, and without the risk to the child.

Dr. Wells' case is not overdrawn. In my case of arm presentation, simple pressure upon the head and hip of the child, externally, carried the arm within the uterus without direct vaginal manipulation. Ordinary skill will correct any malposition, the woman being in the knee-face position.

Very truly yours,

C. N. FOWLER, M.D.

Youngstown, O., May 22, 1885.

C. N. FOWLER, M.D., Youngstown, Ohio.

Dear Doctor:—Yours of the 12th came to hand yesterday, and in reply will state that I came upon the device referred to by accident, thought the idea original, and published it for the purpose of drawing attention to the subject. I am glad to know that I have been preceded in this field by you, and that you have called my attention to the fact. Although engaged in general practice, I make no attempt to keep up with obstetrical literature—being especially interested in other lines—and this accounts for my ignorance of the existence of your paper. I have, however, read most of the modern obstetrical works, and have a large number of volumes of journals issued during the past forty years, all thoroughly indexed, and in but one of these can I find mention of the genu-pectoral position in the rectification of the fœtal position, but in this instance the reference is such as to have led me to think that there was nothing *new* in the position, although the reasons undoubtedly are. If you will turn to page 264 of the 3d edition of Dewees' Midwifery, you will find this sentence, under the heading of "The Position of the Woman for Turning:" "Some recommended the side, *others the knees*, and others the back." It is true that here, and at page 506, he distinctly says that he does not prefer this position, yet his words convey the impression that in his day some made use of this position. I imagine, however, that the identical proceeding through which we have gone has been gone through by others—unrecorded experience—because prolapsus of the cord is of rather frequent occurrence in shoulder cases, and may come on early, before the presentation has been fully made out. In this case almost any accoucher would place the woman in this position for the purpose of replacing the cord, and in doing this he must be rather a dull man if he does not take the hint which Nature gives him.

I believe this subject to be one of prime importance, and that it cannot be discussed too freely. Would it not be well for you to drop a note to the editor of the JOURNAL, criticising my claim that this knee-chest position is "old," and calling attention to your article in the *American Journal of Obstetrics*? The correspondence might bring out many points of historic interest. Very respectfully,

E. F. WELLS, M.D.

Minster, O., April 16, 1885.

BOOK REVIEWS.

A GUIDE TO THE DISEASES OF CHILDREN. By JAMES FREDERICK GOODHART, M.D., F. R. C. P., Assistant Physician to Guy's Hospital, and Lecturer on Pathology in its Medical School; Physician to the Evelina Hospital for Sick Children. Revised and Edited by LOUIS STARR, M. D., Clinical Professor of diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Philadelphia, with Formulæ. 8vo., pp. 738. Philadelphia: P. Blakiston, Son & Co., 1885. Chicago: W. T. Keener.

"As regards the scope of the work—in writing a book upon the diseases of Children, I have not considered it my function to write one on general medicine, but so far as possible, I have kept in view the diseases which seemed to be incidental to childhood, or such points in disease as appear to be so peculiar to or pronounced in, children as to justify insistence upon them; and if the book meets the want it aims to supply, it will be due, I think, as much to its omissions as to its contents." This quotation from the author's preface gives a clear idea of the scope of the book; it deals essentially with disease as seen in childhood. In describing pneumonia and bronchitis the details as to the physical signs, which every person who reads the book should know, are omitted. In the same manner it will be found that unnecessary details are omitted throughout the whole work. At the same time nothing that concerns disease as found in childhood seems to have escaped the author's attention. From introduction to the end it is replete with valuable information, and one reads it with the feeling that Dr. Goodhart is writing of what he has seen at the bedside. It need scarcely be added that the revisions and additions by the American editor are of much value, neither too full nor too spare, and very judicious.

A TREATISE ON AMPUTATIONS OF THE EXTREMITIES AND THEIR COMPLICATIONS. By B. A. WATSON, A. M., M. D., Surgeon to the Jersey City Charity Hospital, to St. Francis's and to Christ's Hospital at Jersey, etc., etc. Illustrated by upwards of 250 engravings, and two full-page plates. 8vo., pp. xix, 762. Philadelphia: P. Blakiston, Son & Co., 1885. Chicago: W. T. Keener.

A notice of this work must necessarily be very short or very long. In making a short notice of it the reviewer must content himself with saying that it stands alone in surgical literature as a work in which everything connected with the subject has been brought out, and dwelt upon at the necessary length; in which there is no unnecessary work of detail, and no omission of important fact; in which the facts are stated clearly and distinctly, and just conclusions drawn from them; and which shows that the whole literature of the subject has been carefully worked. To notice it more fully would involve the use of more space than can be given in any other than a very much larger journal. It is a book to be studied rather than read. It was very graceful in the author

to dedicate it to that master of modern surgery, Sir Joseph Lister. With the exception of a very few of the many cuts, the publishers have done their work in the most creditable manner. A good index completes the book.

MISCELLANEOUS.

VACCINATION WITH YELLOW FEVER VIRUS.—The *Med. Record*, of May 30, gives the following from the city of Mexico: The Government of Mexico has permitted the garrison of Vera Cruz to be vaccinated with yellow-fever virus, according to Dr. Carmona's system. Experiments were first made on prisoners who volunteered for the purpose. Persons vaccinated with the virus have all the premonitory symptoms of the fever. It is thought that the inoculation will serve as a complete protection for four or five years. Great interest is felt in the discovery, and the system will be tried on the west coast and in Sonora.

THE BRITISH GYNÆCOLOGICAL SOCIETY.—At the first *conversazione* of this society, given on May 12, it was stated that more than three hundred members had already added their names to the list.

PROFESSOR BUDIN—The *British Medical Journal*, of May 6, states that on May 6 Mr. Lawson Tait performed laparotomy and hepatotomy, at Nice, on Professor Budin, of the Faculty of Paris, who has been ill for some two years. His symptoms pointed, from the first, to some abnormal condition of the liver, though the precise nature of trouble remained obscure. About the first of May a consultation was held between Professors Tarnier, Brouardel and Bouchardat, and Drs. Bar and Thaon, when it was decided that laparotomy should be performed, and Mr. Tait was asked to go to Nice to do the operation. On cutting into the liver he found a tumor containing a large mass of hydatids, which he successfully removed. A drainage tube was left in the wound. Since the operation Professor Budin has made an uninterrupted recovery.

THE UNIVERSITY OF THE CITY OF NEW YORK.—The Chair of Anatomy, made vacant by the death of Professor Darling, has been filled by the appointment of Dr. Lewis A. Stimson.

THE PLYMOUTH EPIDEMIC.—Through the enterprise of the *Sanitary News*, specimens of the water from the plague-smitten district of Pennsylvania have been examined by Prof. R. C. Kedzie, of Lansing, Michigan. His report states that "when the jug was opened that contained the well-water, an offensive odor was distinctly perceptible. On igniting the residue from this water, there was a strong offensive odor. Both of these waters are bad—unfit for potable and culinary use. The well-water is *simply horrible*! I have examined many bad waters, but never found one so utterly unfit for use. It belongs to the dungheap rather than the dinner-pot. It swarms with the low forms of life in countless numbers. The examination of this water awakens surprise, not that many are sick in Plymouth, but that any should be well."

MEDICAL SOCIETY MEETINGS.—The Medical Society of New Jersey, will hold its annual meeting at Long Branch, on June 9th and 10th. The Oregon Medical Society meets at Portland on the same dates. The Minnesota State Medical Association will meet at St. Paul on June 18.

A METHOD OF DISCRIMINATING BETWEEN BUTTERINE AND PURE BUTTER.—*The Chemical News* gives the following test for butter: Have ready two small but wide-mouthed glass test-tubes, about four inches high, with feet attached. Into one put a piece of butterine or oleomargarine (about the size of a hazel nut), and cork this tube; into the other put a similar-sized piece of pure butter, and cork that tube; next take one in each hand, at the bottom; in ten minutes the butterine melts into a clear, oily fluid, by the mere heat of the blood (98° F.). Pure butter takes twice as long to melt as butterine, and even then is not so clear and oily as butterine, which is a noteworthy difference between them. This is the physical test. For the chemical test, after the tubes have stood to cool for a few minutes, pour on ether to about one-third of the tube, and cork well. Agitate the tubes, one in each hand, clasping them well. The butterine readily dissolves into a clear liquor, which the addition thereto of twenty or thirty drops of alcohol does not disturb or precipitate; but a similar experiment with pure butter produces a voluminous white precipitate. Hereby we can easily distinguish one from the other. Even butter adulterated with a portion of oleomargarine or butterine may be detected by a precipitate being formed.—*Louisville Medical News*, May 23, 1885.

DR. M. H. HENRY, of New York City, had conferred upon him the Golden Cross, and was made an officer of the Royal Order of the Saviour, by the King of Greece, on the fifth day of April, 1885. This distinguished honor was conferred by the King, on the recommendation of the Faculty of the University of Athens.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MAY 23, 1885, TO MAY 29, 1885.

Major Albert Hartsuff, Surgeon, ordered from Dept. Mo. to Dept. East.

Major H. E. Brown, Surgeon, ordered from Dept. East to Dept. Mo. (S. O. 121, A. G. O., May 27, 1885.)

Captain Calvin DeWitt, Assistant Surgeon, ordered for duty at Newport Bks., Ky. (S. O. 107, Dept. East, May 22, 1885.)

Captain Wm. A. Hall, Assistant Surgeon (Davids Island, New York Harbor), ordered for temporary duty at Willet's Point, N. Y., during absence of post surgeon. (S. O. 121, A. G. O., May 27, 1885.)

Captain Wm. G. Spencer, Assistant Surgeon, ordered for duty at Fort Sisseton, D. T. (S. O. 55, Dept. Dakota, May 20, 1885.)

CORRIGENDUM.

In the report relating to a monument in honor of Dr. Benj. Rush, in the number of the JOURNAL for May 23, 1885, page 581, sixteenth line from the top of the second column, the word "*revenue*" should have been *renown*